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DHARAMPAL • *COLLECTED WRITINGS*

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Some contemporary European accounts

by
Dharampal

Other India Press
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By Dharampal

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An introduction to the
Collected Writings
of
Dharampal

Preface

Making History

By Claude Alvares

My encounter with the amazing historical work of Dharampal came about in 1976 in a most unexpected place: a library in Holland. I was at that time investigating material for a Ph.D dissertation, part of which dealt with the history of Indian and Chinese science and technology.

While there was certainly no dearth of historical material and scholarly books as far as Chinese science and technology were concerned—largely due to the work of Dr Joseph Needham, reflected in his multi-volumed *Science and Civilisation in China*—in contrast, scholarly work on Indian science and technology seemed to be almost non-existent. What was available seemed rudimentary, poor, unimaginative, wooden, more filled with philosophy and legend than fact.

Desperate and depressed, I wandered through the portals of every possible library in Holland trying to lay my hands on anything I could find. The irony of looking for material on Indian science and technology in Holland should not be missed. However, I was doing a Ph.D. there and had very little choice.

Then one morning, I walked into the South East Asia Institute on an Amsterdam street and found a book called *Indian Science and Technology in the Eighteenth Century* on the shelf. I took it down, curious. It was by a person named Dharampal whom I had not heard of before as a person or scholar active in that area of research. I took the book home and devoured it the same day. It altered my perception of India forever.

Now, more than twenty years later, I know that the book appears to have had a similarly electrifying effect on thousands of others who were fortunate to get a copy of it. It spawned a generation of Indians which was happy to see India thereafter quite differently from the images with which it had been brought up in school, particularly English medium school.

The book also provided a firm anchor for the section of my dissertation dealing with Indian science and technology. The dissertation was eventually published in 1979 with the rather academic title: *Homo Faber: Technology and Culture in India, China and the West: 1500 to the Present Day.* (*Reissued as *Decolonising History: Technology and Culture in India, China and the West: 1500 to the Present Day*, Other India Press, 1997.)

The same year (1976), a friend of mine from Orissa dropped in at our flat in Amsterdam. I mentioned Dharampal to him. Astonishing to relate, he turned out to be a friend of Dharampal and even told me where he lived. Next door, he said, in London. He also had Dharampal's telephone number. The following week, we took a flight to London and I met Dharampal for the first time in my life. His family was with him at the time: his wife, Phyllis, his two daughters, Gita and Roswita, and his son, David.

The meeting initiated a relationship that has persisted till the present moment. Today I am happy to head a publishing house that is bringing out his *Collected Writings*.

I myself returned to India in 1977. Stranger events followed thereafter.

In 1980, I was called to Chennai to join a civil liberties team probing the killing of political activists in fake police encounters in North Arcot district in Tamilnadu. Predictably, our team was beaten up by a mob set up by the police. On our return to Chennai, where we decided to hold a press conference, we were put up at the MLA hostel. While passing by one of the rooms, whom should I see sitting there but Dharampal himself! I had to rush to the press meeting thereafter.

Before the press could arrive, however, two or three young strangers arrived to meet me. They said they were from the Patriotic and People-Oriented Science and Technology (PPST) group which had members and sympathisers in both Kanpur and Madras IITs. They wanted to sit with me and discuss my book, *Homo Faber* (the Indian edition had just been brought out by Allied Publishers then). They also wanted more information about Dharampal, whose work they were coming across for the first time in *Homo Faber*. Why do you want to talk to me, I asked them, when you can very well meet Dharampal himself! They were astonished. Dharampal? Here in Madras? When I told them where I had found him, they made a bee-line for the MLA hostel.

That encounter initiated a long, fruitful and creative association between Dharampal and the PPST which has also persisted, with some ups and downs, to the present day. For a few years, the PPST brought out a journal called the *PPST Bulletin*. In it, Dharampal and his work occupied pride of place. During this period, in fact, members of the PPST Group produced some of the finest articles ever written and published on the subjects of Indian science, culture, technology, and the relevance of Western science and technology to Indian society. Some members of the PPST later spent a considerable amount of time and energy working on the Chengalpattu data which often recurs in Dharampal's writings.

Today, Dharampal's work is quite extensively known, far beyond the PPST Group, not just among intellectuals and university professors, but also among religious leaders including swamis and Jain monks, politicians and activists. One of the most impressive off-shoots of his research has been the organisation of the bi-annual Congress on Traditional Sciences and Technologies. Three such Congresses, organised by the PPST and institutions like the IITs, have so far been held, generating an impressive wealth of primary material. Dharampal himself has been invited to deliver lectures at several institutions within India and abroad. (Some of these lectures can be found in Volume V of the *Collected Writings*.)

The general effect of Dharampal's work among the public at large has been intensely liberating. However, conventional Indian historians, particularly the class that has passed out of Oxbridge, have seen his work as a clear threat to doctrines blindly and mechanically propagated and taught by them for decades. Dharampal never trained to be a historian. If he had, he would have, like them, missed the wood for the trees. Despite having worked in the area now for more than four decades, he remains the quintessential layman, always tentative about his findings, rarely writing with any flourish. Certainly, he does not manifest the kind of certainty that is readily available to individuals who have drunk unquestioningly at the feet of English historians, gulping down not only their 'facts' but their assumptions as well. But to him goes the formidable achievement of asking well entrenched historians probing questions they are hard put to answer, like how come they arrived so readily, with so little evidence, at the conclusion that Indians were technologically primitive or, more generally, how were they unable to discover the historical documents that he, without similar training, had stumbled on so easily.

Dharampal's unmaking of the English-generated history of Indian society has in fact created a serious enough gap today in the discipline. The legitimacy of English or colonial dominated perceptions and biases about Indian society has been grievously undermined, but the academic tradition has been unable to take up the challenge of generating an organised indigenous view to take its place. The materials for a far more authentic history of science and technology in India are indeed now available as a result of his pioneering work, but the competent scholar who can handle it all in one neat canvas has yet to arrive. One recent new work that should be mentioned in this connection is Helaine Selin's *Encyclopaedia of Non-Western Science, Technology and Medicine* (Kluwer, Holland) which indeed takes note of Dharampal's findings. Till such time as the challenge is taken up, however, we will continue to replicate, uncritically, in the minds of generation after generation, the British (or European) sponsored view of Indian society and its institutions. How can any society survive, let alone create, on the basis of borrowed images of itself?

Dharampal's own description of his initiation into Indian historiography is so fascinating it must be recounted in some detail. Soon after he got associated with the Quit India movement in 1942, he became attracted to the idea of the village community. Perhaps this was partly due to his being with Mirabehn in a small ashram community in a rural area in the Roorkee-Haridwar region from 1944 onwards. But when in 1948, he heard of the Jewish Kibbutzim in Palestine, this interest was evoked again and he visited them in late 1949 for some two weeks. He came away from the visit, however, with the feeling that the Kibbutzim model was not something that could be replicated in India. Later, along with other friends, he did attempt to launch a small village near Rishikesh in which all families had an equal share of the land, etc. The village, however, could not mould itself into a community: it lacked homogeneity. It also had practically no resources at all when it began. Later, in 1960, Dharampal got to know of village communities in Rajasthan which had *Bees Biswa* village panchayats, and some *Sasana* villages near Jagannath Puri in Orissa which were established some 700 years earlier and were still prosperous and functional in the early 1960s.

An encounter which affected Dharampal greatly in this context is best recounted here in his own words:

Around 1960, I was travelling from Gwalior to Delhi by a day train, a 6 or 7 hour journey in a 3rd class compartment when I met a group of people and I think in a way that meeting gave me a view of India, the larger India.

The train was crowded. Some people however made a place for me. And there was this group of people, about twelve of them, some three or four women and seven or eight men. I asked them where they were coming from. They said that they had been on a pilgrimage, three months long, up to Rameshwaram, among other places. They came from two different villages north of Lucknow. They had various bundles of things and some earthen pots with them.

I asked, what did they have in those pots. They said that they had taken their own food from home. They had taken all the necessities for their food—atta, ghee, sugar—with them, and some amounts of these were still left over. The women didn't seem to mind much people trampling over them in the crowded compartment, but they did feel unhappy if someone touched their bundles and pots of food with their feet.

And then I said they must all be from one jati, from a single caste group. They said, 'No, no! We are not from one jati—we are from several jatis.' I said, how could that be? They said that there was no jati on a yatra—not on a pilgrimage. I didn't know that. I was around 38 years old, and like many others in this country who know little about the ways of the ordinary Indian—the peasants, artisans and other village folks.

And then I said, 'Did you go to Madras? Did you go to Bombay?' 'Yes! We passed through those places.' 'Did you see anything there?' 'No, we did not have any time!' It went on like that. I mentioned various important places of modern India. They had passed through most, but had not cared to visit any.

Then I said, 'You are going to Delhi now?' 'Yes!' 'You will stop in Delhi?' 'No, we only have to change trains there. We're going to Haridwar!' I said, 'This is the capital of free India. Won't you see it?' I meant it. I was not joking. They said, 'No! We don't have time. May be some other day. Not now. We have to go to Haridwar. And then we have to get back home.'

> We talked for perhaps 5 or 6 hours. At the end of it I began to wonder, who is going to look after this India? What India are we talking about? This India, the glorious India of the modern age, built by Jawaharlal Nehru and other people, these modern temples, universities, places of scholarship! For whom are we building them? Those people on their pilgrimage were not interested in any of this. And they were representative of India. More representative of India than Pandit Jawaharlal Nehru ever was. Or I and most of us could ever be.

The encounter shook Dharampal then, as much as the memory of it bothers him even today. This particular experience, more than any other, drove him to look for the causes of the profound alienation of India's new leaders from the preoccupations of the common people and to investigate whether this had always been so.

Similarly, fascinated by the largely intact and functioning *Bees Biswa* and *Sasana* village communities, he wished to know what it was that had kept these aspects of Indian civilisation so far alive and ticking (in contrast to some of the disintegrated and pauperised communities we encounter in the present). He assumed that if the basis of these hitherto vibrant communities were understood, it might assist Indian society—particularly its intellectuals and political leaders—to divest itself of its present state of depression and disinterest with its surroundings and perhaps become lively again. The inquiry had to focus on how India had functioned before the onset of the debilitating British and European dominance. When he began, he had no clear direction in which to look. Even after he had found what he was looking for, the utter significance of it would dawn on him only later.

It is important for the reader to know that till about 1964, Dharampal merely had a layman's knowledge of archives and the records and material they generally held. His first acquaintance with the archival record on India began at Chennai (previously Madras) during 1964-65 but expanded and deepened over the years. He discovered that most of the material dated from around 1700 A.D. and owed its creation largely to British needs, even when these archives held some Indian language materials on paper or palm leaves. (The Portuguese, the Dutch, the French, and the various European Christian as well as commercial institutions which began to come to India from the mid-16th century also maintained similar archives relating to their encounter with India but these were smaller.)

All this British archival material (some of which is presented or referred to in the *Collected Writings*) mostly dwells on certain aspects of India as seen and understood then by the British. The material falls broadly within three areas:

The first relates to descriptions of India, its physical landscape, the manners of its people in certain regions, their public life, festivals, cultural life and institutions, the nature and extent of Indian agricultural and industrial production, and Indian sciences and technologies.

The second pertains to the continuing British-Indian encounter, especially from around the British occupation of Arcot in 1748 to about 1858. Then the encounter is again visible from about 1875, and with its high and low spots, continues till 1947 when India got divided into India and Pakistan, and the British-created institutions and functions were taken over by their own governments.

The third begins with the unfolding of British designs and policy pertaining to India in Britain in the 1680s and thereafter, and their visible implementation and imposition on India from around 1750. The origins of these designs and policies remain mainly in Britain till the very end, while their implementation is in India, and in the areas governed in India's name from the China seas in the East to St. Helena in the West.

It would be helpful at this stage to know how this huge and very detailed archival record was indeed created. For this purpose, a little background relating to the governance of India during English colonial rule is absolutely necessary.

It is conventional doctrine (taught in most history books) that from 1600 to around 1748 the British East India Company (E.I.Co.) established itself largely in the coastal towns and cities of India, declared these places as fort towns and called them factories, i.e. store houses for trade, with the requisite military establishments. From 1748, the E.I.Co. is said to have gradually involved itself in the conquering of India and till 1858 at least was considered to be solely responsible for the plunder and violence associated with the conquest. We are further told that it is only because the British were disturbed by the company's misrule—which resulted in the great Indian Mutiny of 1857-58—

that they decided to establish direct rule in India and that the governance of India was placed under the charge of a British cabinet minister named the secretary of state for India, an arrangement that eventually continued till 1947.

It is true that an E.I.Co. was established in Britain through the grant of a charter in 1600, and that it had adventurers and plunderers in its ranks. But, according to Dharampal, it never altogether functioned on its own. From the beginning, the company had the full support of British naval forces in its expansion drive, and often of British state military forces as well. Also, from the beginning, the E.I.Co. contributed substantial sums (in millions of pounds sterling) to the British government treasury and also advanced amounts at low interest to the British state. From time to time, it received directions from British state authorities and at times certain of its affairs were placed under the charge of British naval commanders who received their instructions directly from the British King or the British Admiralty. It is these directions and communications that comprise the earlier archival records.

One such major case involving official supervision was the final British encounter with Admiral Kanohji Angrey of Maharashtra around 1754. The British state felt he was a great challenge to British expansion and had to be somehow eliminated. There would have been scores of such instances between 1600—when the E.I.Co. originated—and 1750, when it began to assume the role of a conqueror and sovereign.

From 1750 onwards, more and more instructions from the British were conveyed through various channels to the E.I.Co. After the British domination of Bengal from 1757 onwards, Robert Clive—a ‘heaven born General’ according to Lord Chatham, virtual ruler of the British then—wrote to Britain that India could only be governed directly by the British state and not by any company. This and other similar advice was deliberated upon for some years leading to the Regulating Act of 1773 by which the British state appointed the Governor General and his Council, and 11 years later, to the 1784 Act, which established a Board of Commissioners for the Affairs of India, with a President and 6 members, one of whom in the early stages was none other than the British Prime Minister. The Commissioners then were made the rulers of India. All instructions of any kind to any department of state in India, or to its three Presidencies, were cleared by them in detail (word by word, comma by comma). Once these were final, the job of the Court of the E.I. Co. was to send these to India under the signature of their Chairman and members.

Besides, a separate channel of communication was opened between the President of the Board of Commissioners and the British Governor General in India (as also with the Governors of the Presidencies), which at times even over-rode certain formal instructions conveyed through the company. The instructions in certain departments were prepared by the Board of Commissioners themselves, the signature of the Chairman of the Company obtained, and the matter sent to India from the Board's office itself. It is this arrangement which prevailed till 1858. The change in 1858 was in fact only a change in nomenclature: the President of the Board was now the Secretary of State for India. (Thus, the E.I.Co. as such became wholly redundant in the ruling of India, or areas in its vicinity i.e., from the China seas to St. Helena, from 1813 onwards, if not from much earlier. According to Dharampal, this clarification needs to sink deep not only into Indian minds, but, into the minds of the world historical community too.)

Thus, details of every occurrence in India which came to the notice of British authority had to be communicated, at least till 1858, to London in order to obtain instructions or the approval of London on the individual issue. The British archival record therefore informs us of each and every such event.

So, if one wanted to have knowledge in any detail of the society and life of India before British dominance, the obvious thing to do was to carefully peruse these British-generated archives. This Dharampal now did. He did not have much of an income. There was also a family to support. But notwithstanding all this, he became a regular visitor to the India Office and the British Museum. Photocopying required money. Oftentimes, old manuscripts could not be photocopied. So he copied them in long hand, page after page, millions of words, day after day. Thereafter, he would have the copied notes typed. He thus retrieved and accumulated thousands of pages of information from the archival record. When he returned to India, his most prized possession was these notes, which filled several large trunks and suitcases.

It is not that others had not consulted these very records before. Dozens had. They missed the overall picture largely because they saw the material in fragments, for a particular piece of research, over a month or a year or two. Dharampal, in contrast, gave it the benefit of decades. His mind retained every detail of what he read with uncanny sharpness. That is how he eventually got the whole picture.

This picture that emerged from the total archival record was nothing short of stunning. Contrary to what millions of us were taught in our school text-books, it indicated the existence of a functioning society, extremely competent in the arts and sciences of its day. Its interactive grasp over its immediate natural environment was undisputed; in fact, it demanded praise. This was reflected in both agricultural and industrial production. We know today that till around 1750, together with the Chinese, our areas were producing some 73% of the total world industrial production, and even till 1830, what both these economies produced still amounted to 60% of world industrial production. Even in a moderately fertile area like that of Chengalpattu (Tamilnadu), our paddy production in a substantial area of its lands around 1760-70 amounted to some 5-6 tons per hectare, which equals the production of paddy per hectare in present day Japan—the current world high. A vast educational set-up—based on a school in every village—looked after the requirements of learning of large masses of young people.

The most impressive feature of the set-up was the elaborate fiscal arrangements made for its upkeep in perpetuity, if required. From the gross produce, amounts were allocated by tradition for the upkeep of the system, from the engineers who looked after the irrigation tanks and channels to the police and school teachers. In technology, we produced steel that was superior to Sheffield steel. We also produced dyes, ships and literally hundreds of commodities.

As he recorded all this, Dharampal also saw how it was all being undermined, how the British in fact went about pulverising the Indian economy and society.

As he studied the sometimes fascinating, sometimes cruel record, practically every day, it held him as if bewitched. He found that the British successfully initiated an intricate system of widespread control and extortion, taking away as tax most of what the land produced, as well as the products of manufactures. He found it horrifying that this was often done at the point of the bayonet.

According to Dharampal, the British purpose in India, perhaps after long deliberation during the 17th century, was never to attempt on any scale the settlement of the people of Britain or Europe in India. It was felt that in most regions of India, because of its climate, temperature range, gifted, industrious and dense population, the settling of the people of Europe would serve little purpose.

Therefore the purpose was defined as bringing to Britain and Europe, surplus products of the varied industry of the people of India, and the taxes imposed on this industry. Such a proposal, in fact, was very clearly put forward around 1780 by Prof. Adam Ferguson of Edinburgh. Ferguson was a professor of moral philosophy. (Interestingly, he is also regarded as the founder of British sociology.)

While discussing the mode of governing India, Ferguson raised the question of the purpose of this governance. According to him, the aim was to transfer as much as possible of the wealth of India to Europe. And this task, according to him, could not directly be conducted by servants and institutions of the British state. They would be too bound by rules and state discipline to do justice to the task. The transfer of wealth to Europe, he felt, would generally require the bending and breaking of rules as no major extraction or extortion from the ruled could be effectively done through instruments of the state. He therefore felt that the direct governance of India should be in the hands of the servants of a body like the E.I. Co., where the servants could when needed disobey orders and rules. But the company should be controlled and supervised by a high-power body constituted by the state. It is this logic and arguments that eventually led to the formation of the Board of Commissioners for the Affairs of India in 1784.

Dharampal found that for long periods in the late 18th and the 19th centuries, the tax on land in many areas exceeded the total agricultural production of very fertile land. This was particularly so in the areas of the Madras Presidency (comprising current Tamilnadu, districts of coastal Andhra, some districts of Karnataka and Malabar). The consequences of the policy were easy to predict: in the Madras Presidency, one third of the most fertile land went out of cultivation between the period 1800-1850. In fact, as early as 1804, the Governor of the Madras Presidency wrote to his masters (the President of the Board of Commissioners) in London:

> We have paid a great deal of attention to the revenue management in this country...the general tenor of my opinion

> is, that we have rode the country too hard, and the consequence is, that it is in a state of the most lamentable poverty. Great oppression is I fear exercised too generally in the collection of the Revenues.

Of course, Dharampal also found within the same archives information about the Indian civil resistance in various regions of India in the early stages of British rule, like the one in Varanasi region around 1810-11 and in Canara around 1830, and how they were contained. But such events are not taken note of in the formal record as deliberate policy. Even petitions against grievances, though invited, would not be officially recorded unless the wording of the petition conveyed a sense of the petitioner's humility and of his (or her) limitless respect for authority.

Excerpts from one such rejected petition against the house tax imposed in Varanasi highlight this:

> ...former sooltauns never extended the rights of Government (commonly called malgoozaree) to the habitations of their subjects acquired by them by descent or transfer. It is on this account that in selling estates the habitations of the proprietors are excepted from the sales. Therefore, the operation of this tax infringes upon the rights of the whole community, which is contrary to the first principles of justice...
>
> ...It is difficult to find means of subsistence and the stamp duties, court fees, transit and town duties which have increased tenfold, afflict and affect everyone rich and poor and this tax, like salt scattered on a wound, is a cause of pain and depression to everyone both Hindoo and Mussulman; let it be taken into consideration that as a consequence of these imposts the price of provisions has within these ten years increased sixteen fold. In such case how is it possible for us who have no means of earning a livelihood to subsist?...

By their methods of extortion and other similar means, the British were able to smash Indian rural life and society by about 1820-1830. Around the same period, the extensive Indian manufactures met a similar fate. Because of deliberate British policy, the famed Indian village communities so eloquently described by Thomas Metcalfe around 1830, and by Karl Marx in the 1850s, had mostly ceased to exist.

Similar comments could be made about the narratives on Indian science and technology. Initially they were desired for their contemporary relevance and usefulness to the advancement or correction of their British counterparts. But soon after the British began to rule and control Indian life and society, the continuity of Indian knowledge and practice seemed to them a threat. Therefore it was something to be put aside so that it crumbled or decayed. Dharampal found that such a programme of 'making extinct' was contrived in practically every sphere of human activity, including the manufactures of cotton textiles, the production of Indian steel, and even the Indian practice of inoculation against small pox as early as A.D.1800.

A similar fate awaited the extensive network of Indian schools and institutions of higher learning when they began to be surveyed in the 1820s and 1830s. Ironically, it is mainly through the British archival records that one becomes aware of the extensive nature of the education network, as well as its speedy decay in the Madras and Bengal Presidency, and somewhat later in the Presidencies of Bombay and in the Punjab. Of course, the view which we get from such archival material is splintered and not integrated. But the indicators in themselves are of great value. They also provide us glimpses of pre-British life and of aspects of India's society of which we had lost track from about A.D. 1850 when society was broken up and suppressed, and an imposed alien system of education made us ignore and forget the innumerable accomplishments of our people.

Dharampal is quite clear and explicit on the uses of history. He writes:

> If we investigate these records on similar aspects further, on the basis of what is available in our archaeological, inscriptional and other historical sources, and what is still retained in the memory and consciousness of our people, we ought to be able to reconstruct our social and cultural past, and hopefully to mould our state and society accordingly.
>
> Since Independence in 1947, it is this question of reconstruction of self and society on the foundation of our priorities, values, tradition and culture that seems to have completely eluded us, particularly our scholars, administrators and politicians. We appear to have forgotten that we can look back and learn from our own past, and

> based on that experience, construct our own unique identity within the context of our own affairs as well as that of the rest of the world. What do we as a nation—without leaning on others' ideological and material crutches—want? Do we have ingenuity or not? Can we make our own points—as against aligning with one sort or another? Do we have a point to make as Indians?

When Dharampal started on this monumental work around 1965-66, he had felt then that whatever these British accounts might tell us, and howsoever incompletely, they would help us if we followed them up with further detailed and intensive explorations of such material as exists in India. Further, with the association of our own people in the exploration—in most things, still linked with their past and with much more vivid memories of it—we should, within a generation or so, begin to reconstruct our earlier life and society, linking this with our present circumstances and needs. It is distressing to note, though, that we are yet to undertake this task. Dharampal writes further:

> Today, we feel encircled by hostility—much of it in fact generated by our own ineptitude and actions. From around 1947, we have treated ourselves as cousins of the West. Dominated by the West, it may be necessary at the moment to rely on Western knowledge and products. But this can only be a short term proposal. Very soon, whatever Western know-how or products seem essential to us, we must learn to produce them in our own way, with our own material, variations and modifications.
>
> In the meanwhile, however, we must set our ordinary people free; remove the obstacles in their path relating to use of their local physical and material resources, and encourage them to use their talents to rebuild their own shattered worlds in their own various ways (even, if required, by withdrawing those laws and rules which tend to block whatever they attempt, and keeping our advice and criticism to ourselves). Only then can other local relationships and linkages begin to come alive; societal manners and memory pertaining to specific activities begin to get awakened; and the rebuilding not remain a mere copy of the past. By taking account of the world around it, Indian society will begin to integrate such elements of Western or other technologies that seem to it as relevant and stimulating for its own base.

> For all this to happen, a profound alteration in our attitudes towards our people and our past has to take place. We must enable our people to feel more self-assured, confident, hopeful, proud of their talents and capacities, and encourage them to regain their individual and societal dignity.
>
> To achieve this state, they need to acquire a better awareness—especially as children and youth—of the human past of their localities, and to establish friendly relations with other beings including all kinds of animal life and plants, rivers, lakes, ponds, hills, forests, soil, etc. which coexist with man. Similarly, we should begin to be aware of the linkage of each and every locality with the immediate region, of the region with the country, and of our country with other countries on this earth, and the earth's linkage with the cosmos.
>
> These efforts would require new texts of well told stories of localities, regions, countries, the world, and the various ideas about the beginning or non-beginning of the universe. Such knowledge and awareness would make our people feel confident and well informed and also enable them to partake of the Indian understanding of life and of natural phenomena.
>
> It would also ground them in the elements of various sciences and technologies in agriculture, animal husbandry, forestry and crafts, as well as in history, philosophy, grammar and language. Thus, by about the age of fourteen, our children—boys as well as girls—would have become competent citizens of their respective areas.

All histories are elaborate efforts at myth-making. Therefore, when we submit to histories about us written by others, we submit to their myths about us as well. Myth-making, like naming, is a token of having power. Submitting to others' myths about us is a sign that we are without power. After the historical work of Dharampal, the scope for myth-making about the past of Indian society is now considerably reduced.

If we must continue to live by myths, however, it is far better we choose to live by those of our own making rather than by those invented by others for their own purposes, whether English or Japanese. That much at least we owe ourselves as an independent society and nation.

INDIAN SCIENCE AND TECHNOLOGY
IN THE
EIGHTEENTH CENTURY

To the present day descendants of the
teachers and practitioners of Indian
sciences and technologies

...and for David, Gita and Roswitha

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The documents reproduced in Chapters I to XVII are printed in this volume with their original spellings, punctuation and English. While all possible care has been taken in their reproduction, some errors remain in the printed text and these are because the words are illegible in the original. These errors do not make any substantive alteration in the meaning of the concerned passages.

June 1971 Dharampal

Introduction

The present volume is part of an attempt to understand the functioning of the Indian state and society some eight to ten generations back, i.e., around the period 1750, when India began to fall under European domination—firstly in the Tamil and Telugu areas, and afterwards in Bengal and elsewhere. This attempt consisted in a perusal, during 1966-70, of some of the vast Indian archival material in the English language lodged in the archives of Britain. This volume presents some of the major eighteenth and early nineteenth century documents found during this search on the subject of science and technology.

The authors of these documents came to India in various capacities: as military, medical and civilian servants of the European governments; as travellers, sometimes coming on their own, but more often sent by wealthy patrons or the newly established learned societies (like the Royal Societies of Paris and London; the Society of Arts in London, etc.); and some, like the Jesuits, came on behalf of the various Christian religious orders. According to the European scholarly canons of the time, all these were experts in their respective fields and were considered to be competent to report on what they observed or studied. Most of those, included here, spent a substantial part of their active lives in different parts of India.

Practically all European scientific and technological accounts relating to the sciences and technologies of non-European countries (including the ones reproduced here) are an outcome of the seventeenth and eighteenth century European quest for useful knowledge in these fields. The nature of the quest itself got wider and more complex with the passing of practically each decade. Few things, except finished consumer goods or gold and diamonds, etc., were noticed in the non-European world by the earlier European travellers, servants of European states, and the scientists and technologists, etc. This was partly due to the short durations which most of them spent in any particular area. But the preponderant cause was the lack of requisite comprehension amongst the learned of Europe of the prevailing non-European practices and technologies. Such lack of understanding was even more evident amongst the learned of Britain who, till about 1800, seem to have lagged behind some of the other parts of Europe in many scientific and technological fields by about fifty years.

Two examples of such lack of comprehension pertain to the practice of inoculation against smallpox, and the use of the drill plough. Till 1720, when the wife of the then British Ambassador in Turkey, having got her children successfully inoculated,[1] began to advocate its introduction into Britain, the practice of inoculation was unknown to the British medical and scientific world. Proving relatively successful, though for a considerable period vehemently opposed[2] by large sections of the medical profession and the theologians of Oxford, etc., an awareness grew about its value and various medical men engaged themselves in enquiries concerning it in different lands. The two accounts of inoculation reproduced here are a result of this post-1720 quest.

Similarly about the drill plough. The drill plough is said to have been first used in Europe by one Joseph Locatelli of Carinthia (Austria) in 1662.[3] Its first introduction in England dates to 1730. But it took perhaps another 50 years before it was used on any scale. It was used in India (according to the authors of Chapters XII and XIII) from time immemorial. Observations of its use, by the British, however could only begin in the last decades of the eighteenth century, after its awareness had dawned on the more observant amongst them.

Initially, the quest is limited and the queries which are put by the various European learned societies and individual patrons to those of their kind who have stayed or wandered in the non-European world, are fairly simple. In course of time, as knowledge gets added to knowledge and newer formulations develop in Europe, the quest becomes wider and more sophisticated and the queries begin to be concerned with the more complex. The interest in the Indian manufacture of ice; in the making of the ‘Madras mortar’; in the processes of Indian iron and steel manufacture; or the observatory at Varanasi (Benares) (treated as one of the five ‘celebrated observatories’ of the world by the

Encyclopaedia Britannica in its editions till 1823); the search for newer chemicals and dyes, or for materials for the water-proofing of the bottom of ships (considerable quantities of which were sent with information as late as the 1790s by a Bombay correspondent to the President of the British Royal Society: Chapter XVII), arose out of rapidly multiplying but specific European needs.

It is in this context of widening horizons as well as the urgent need for materials and processes (partly resulting from constant warfare in which the Europeans were engaged during the greater part of the eighteenth century) that accounts of the kind presented here were written and submitted by individual Europeans to their respective patrons. It is in these European writings of the period (i.e., from about 1720 to 1820), that one discovers the observed details about science and technology as well as about the societies, institutions, customs and laws of various parts of the non-European world. Before this period, the European ability to comprehend this new world was limited; after about 1820, the knowledge and institutions of the non-European world also began to have much less usefulness to the problems of Europe. Further, by the 1820s, most parts of the non-European world are no longer themselves. Their institutions, sciences and technologies are not what they were 50 or a 100 years earlier, and have met the same fate as their political systems and sovereignty. By the 1820s or so, most of the non-European world had become, at least in European theory and most conventional history texts, if not actually in practice, 'backward and barbarian'.

But the imagery of backwardness and barbarism which still serves as a descriptive label for most of the non-European world was no sudden product of the 1820s or any other decade. It grew over a fairly long period, but at a much accelerated pace after about 1780. Many of the post-1780 accounts reflect the growth of this attitude amply.

The widespread prevalence (no less amongst the learned and scholarly) of European ethnocentric bias is dramatically demonstrated by the post-1780 writings on Indian astronomy and the observatory at Benares. It comes through even in the very learned review (p.48-93) which Prof John Playfair, professor of mathematics in the University of Edinburgh, an academician of distinction, did of the then accumulated European knowledge on Indian astronomy. After a detailed examination, he arrives at the conclusion that the Indian astronomical observations pertaining to the period 3,102 years before Christ appeared to be correct by every conceivable test. Such correctness of observation was possible either through complex astronomical calculations by the Indians or by direct observation in the year 3102 B.C. He chooses the latter explanation. The reason for the rejection of the explanation that these could have been arrived at by the Indians through astronomical calculation would have implied that 'there had arisen a Newton among the Brahmins, to discover that universal principle which connects, not only the most distant regions of space, but the most remote periods of duration, and a De La Grange, to trace, through the immensity of both its most subtle and complicated operations.'[4] It became intellectually easier for him to concede this astronomy's antiquity rather than its sophistication and the scientific capacities of its underlying theories.

But even the conceding of its mere antiquity was of very short duration. With the strengthening of the fundamentalist and evangelical Christian tendencies, this concession began to look like blasphemy. Keeping in view the European historical premises, originating in the Old Testament, it was just not conceivable for anything except the stated items to have survived 'the Deluge' which was computed to have taken place in the year 2348 B.C. By 1814, though things Indian were still being half-heartedly defended by a journal like the *Edinburgh Review*, even the mere antiquity of Indian astronomy had received a final European dismissal.

While reviewing Cuvier's 'The Theory of the Earth'[5], (in which Cuvier had ridiculed and dismissed the ancient date of the Indian tables), the *Edinburgh Review* took cognisance of the changed attitudes and relationships between Europe and the non-European world, and observed: 'But though the tide of opinion seems, for some time past, to have set strongly against the high antiquity of the sciences of the East, it does not appear that the main arguments of the Historian of astronomy [i.e., Bailly] have ever been refuted.' It tried to resolve the contradiction between the Mosaic and Christian belief, and the earlier date of the Indian tables, by advancing the proposition, that 'the early date of that Astronomy, and the usual date of the Deluge, may be perfectly reconciled, on the supposition that the former is a fragment of antediluvian science, which had escaped the general destruction.' Such a solution of the controversy was, however, no longer practicable, nor necessary from the viewpoint of European scholarship, in what had by then become an exclusively European century.

Even when the ancientness of Indian astronomy was being conceded, as was done by Prof Playfair, it was difficult to admit that the eighteenth century Indian astronomers and scholars on the subject had any real competence. According to Playfair, the eighteenth century Indian astronomer had 'little knowledge of the principles on which his rules are founded, and no anxiety to be better informed.'[6] Yet it was only through intercourse with Indian astronomers and by means of instruction and data received from them that the European knowledge of Indian astronomy could be acquired. It was thus acquired by M. Le Gentil during his visit to India about 1769. According to the *Encyclopaedia Britannica*: 'During the time of his stay in Hindustan, the Brahmins had been much more familiar with him on account of his astronomical knowledge, than they usually were with Europeans, and he thus had an opportunity of obtaining considerable insight into their methods of calculation. In consequence of this instruction he published tables and rules, according to the Indian method, in the Academy of Science for 1772.'[7]

The general incommunicativeness of eighteenth century Indian scholars and specialists in the various fields had two probable roots: one, the usual secretiveness of such persons, and, two, the very sophistication and complexity of their theories which in their view (whether rightly or wrongly) would not have been understood by most Europeans. It is possible that the various sciences and technologies were on a decline in India around 1750 and, perhaps, had been on a similar course for several centuries previously. But there seems little doubt that the processes, methods, theories and formulations described in the contemporary accounts included in this volume were very much a living reality in the areas of India to which they pertain. Whether these were also used or taught or discussed in most other parts is a matter for detailed investigation, not only into the English language records, but more so in the surviving indigenous Indian records of the period, and also the Indian archival material in other foreign languages. How do mid-eighteenth century Indian sciences and technologies compare with the sciences and technologies in earlier periods requires similar investigation.

The later eighteenth century European ethnocentric preoccupations had other dimensions also. Some of these are expressed in Chapters III and V, whereby everything existing elsewhere is visualised to have had its origin in India. A different dimension was expressed in propositions like: 'The Hindu religion had its origin in the British Isles,'[8] (which was held to be the *Sweta Dwipa* of the Hindu classics). Though perhaps not so intended, all of these conflicting speculations and formulations ultimately led to the subversion of the non-European world. Many directly confirmed the growing European view of the barbarism and ignorance of the non-Europeans; the others served the same purpose by becoming easy targets for European ridicule and contempt.

II

Four of the accounts included in this volume deal with astronomy and two with mathematics. The observatory at Benares described by Sir Robert Barker, after a visit to it in 1772, still exists more or less intact and is at present known as the Man Mandir. It stands only a few hundred yards away from the Dasasvamedha Ghat. Its appearance today seems even more neglected (It is tragic that one of the five celebrated observatories of the world (and in India the most celebrated), though still intact, remains in complete neglect. Its counterparts in Britain, France, etc. are greatly cherished and serve as the repositories and centres of their respective astronomical knowledge. India owes that much to itself and its people that places like the Man Mandir are duly cherished and looked after.) than that described two centuries ago, except that a few plates have been fixed indicating the names of the various *yantras* (instruments) in Hindi and English. Two other plaques indicate the period of the building and the date of the erection of the observatory. While the building is stated to have been built in the late sixteenth century, the relevant plaque states the erection of the observatory in the early eighteenth.

Such playing about with the dates of the founding of the observatory has a curious tale to tell. Barker's account was published in the *Transactions* of the British Royal Society in 1777 and it put the erection of the observatory some two centuries previously. In 1792, in conformity with the request of a Fellow of the Royal Society, another report on the observatory was received from one J.L. Williams of Benares. This was published in the *Transactions* in 1793.[9]

One of the two main points which this later account, as if in passing, tried to make was that the observatory only came into being some 50-60 years earlier and was not built in the sixteenth century—as stated by the Bengal commander-in-chief in his article published in 1777. To support this contention, it produced what it claimed to be the opinion of the Indian magistrate of Benares (who, incidentally, with his colleagues was in the process of being displaced by British judges and magistrates through the newly enacted 'Cornwallis' Judicial Regulations). The magistrate is alleged to have said that though the building was built by 'Rajah Maunsing, for the repose of holy men and pilgrims', the 'observatory was built, by the Rajah Jeysing.' Further, it was begun in 1794 *sumbut* (A.D. 1737) and finished in two years and that the Rajah died in 1800 *sumbut* (A.D. 1743). To this was added the even 'weightier' opinion of the Brahmins of Benares 'one of whom is professor of astronomy in the new founded college.' According to him, 'they all agreed that this observatory never was used, nor did they think it capable of being used, for any nice observations; and believe it was built more for ostentation, than the promotion of useful knowledge.' Besides these two points, the article gave the measurements of the various instruments but stated that 'from the want of sufficient knowledge of the science of astronomy, I have not been able to describe the different instruments, and their uses, satisfactorily; however, you may rely on the measurements being taken with the greatest exactness.'

The subject of the Benares observatory was again taken up in 1798 by William Hunter, an assistant to the British Resident at the Marhatta capital at Poona, in an article, 'Some account of the astronomical labours of Jayasinha, Raja of Ambhere, or Jayanagar'. The interest in Raja Jayasinha is explained: 'Arising superior to the prejudices of education, of national pride and religion', Jayasinha strove to enrich his country 'with scientific truth derived from a foreign source', in this particular instance, Europe. The writer was quite candid and outspoken about his purpose. He said: 'I have always thought, that after having convinced the eastern nations of our superiority in policy and in arms, nothing can contribute more to the extension of our national glory, than the diffusion among them of a taste for European science. And as the means of promoting so desirable an end, those among the natives who have penetration to see, and ingenuousness to own its superior accuracy and evidence, ought to be cherished.'[10]

This article made an attempt to provide documentary evidence of the Benares observatory as having been the creation of this early eighteenth century Raja Jayasinha by quoting from what is called the *Zeej Mohammedshahy*. (If it still exists, much more needs to be known about this mid-eighteenth century document: how it came to be written, by whom, under whose patronage and in what year.) According to this document, having 'assembled the astronomers and geometricians of the faith of Islam and the Brahmins and Pundits, and the astronomers of Europe' etc., Jayasinha 'bound the girdle of resolution about the loins of his soul, and constructed (at Dehly) several of the instruments of an observatory.' And 'in order to confirm the truth of these observations' i.e., at Dehly, 'he constructed instruments of the same kind in Sewai Jeypoor and Matra, and Benares and Oujein.' With the foregoing statement from the *Zeej Mohammedshahy,* the documentary proof ended. For the rest, he added: 'The observatory at Benares having been described by Sir Robert Barker and Mr Williams, I have only a few remarks to offer, in addition to the account delivered by those gentlemen' [11] and the writer made some more observations on its measurements, etc.

Various other Britishers seem to have gone and made reports on the Benares observatory in the early decades of the nineteenth century. But the subject soon disappeared from public discussion. It was re-opened in 1920 by the author of 'A Guide to the Old Observatories',[12] originally published by the Archaeological Survey of India. It stated that the Man Mandir i.e., the actual building of the Benares observatory, 'was built about the beginning of the seventeenth century. The astronomical instruments were added by Jai Singh about A.D. 1737.' It said further: 'The date is not certain, and nearly every writer gives a different one.'

It further observed, ‘Prinsep wrote: “The building was converted into an observatory by Jaysingh in A.D. 1680” and refers to a supposed description of it by Tavernier.’ Dismissing all these other dates (Prinsep, with a footnote: ‘Tavernier died in 1689, three years after Jai Singh’s birth.’) this author concluded that ‘Williams’ date for the observatory at Benares, 1737, may be accepted’ as he ‘on all points that can be verified, is extremely reliable’, and quoted Hunter as speaking ‘of the accuracy of Mr Williams’ measurements.’[13]

The eighteenth century dating of the Benares observatory thus rests on the two articles published in 1793 and 1798 respectively; the first, at the instance of a Fellow of the Royal Society, and the second, in a longer piece wishing to convince the Eastern nations of the superiority of European eighteenth century science with a view to ‘contribute more to the extension of our national glory.’ What Tavernier said in his published, ‘Travels’ was: ‘Near to this great Pagod, upon the summer-west, stands a kind of a college which the Raja Jesseing the most potent of all the idolaters in the Mogul’s empire, built for the education of the youth of the better sort.’[14] Tavernier visited Benares in 1655-6. It may be added that quite a few ‘Jayasinha’ (spelt variously) have been Rajas of ‘Ambhere’ through the centuries. It is possible that this fact has also contributed to different writers claiming widely separate dates for the construction of the Benares observatory.

A rather curious point arises here out of this chronology about the dating of the Benares observatory: Barker along with Pearse, and A. Campbell visited the observatory in 1772. If the observatory was actually built in 1737, it was only 35 years old at this date. Both Barker and Pearse specifically state that it had been there for some two centuries. They must have arrived at this statement after meeting and conversing with persons who, if the observatory had been constructed only 35 years previously, must have been eye witnesses to its construction. As there was no controversy in 1772 about the date of the construction of the observatory, it is inconceivable that Barker’s informants misled him on this point. The conversion of two centuries into 35 years is the most fabulous aspect of this later controversy.

Next is the long and learned review (Chapter II), 'Remarks on the Astronomy of the Brahmins', by John Playfair, read by him in 1789. In this article, the author begins by referring to certain astronomical tables received from the East Indies by European scholars at an early stage in their contact with the East. Some of these tables were received from Siam and their 'epoch' corresponded to 21 March 638 A.D. But the point to note was that the 'meridian' of these tables was not Siam but Benares!

Other tables received from South India had one thing in common. Their 'epoch' coincides with the era of *Kaliyuga*, that is, with the beginning of the year 3102 B.C. Prof Playfair begins by enquiring whether the 'epoch' was real or fictitious; that is, whether the planetary positions at that time were actually observed or were merely calculated back from the 'epochs' of more modern tables to coincide with a mythical *Kaliyuga*.

Prof Playfair observes that it is not for astronomy, even in its most perfect state, to go back 46 centuries and to ascertain the situation of the heavenly bodies at so remote a period, except with the help of lately developed Integral Calculus and the Theory of Gravitation. He finds that the positions of the planets as given in these tables is very close to the position as calculated back with the help of modern Integral Calculus and the Theory of Gravitation. All other systems of calculation, whether Chaldean or Egyptian or Greek which the Hindus might have used for their purpose gave very different results.

So for him, the inescapable conclusion is that these positions were observed by the Brahmins, and it is rather a wonder that the Brahmins could do so rather precisely at so distant a past. Prof Playfair also observed that the construction of these tables implied a good knowledge of geometry and arithmetic, as well as the possession of a Calculus equal to Trigonometry.

The paper (Chapter IV) by Colonel T.D. Pearse, sent by him to the Royal Society, London, and surviving in their archives, refers to the Indian knowledge of the four Satellites of Jupiter and the seven Satellites of Saturn. Pearse further felt that the Indians must have possessed some kind of telescopic instruments to have acquired such detailed knowledge. The author of Pearse's memoirs, while including a slightly modified version of this piece in the memoirs, states:

> We cannot pass this interesting communication without offering some reflection upon the subjects it embraces. The circumstances of the four girls dancing round the figure of

> Jupiter, as they ought to be according to the Brahmin's statement to Colonel Pearse, is a strong argument in favour of the superior knowledge of the heavenly bodies which the ancient Arabians and Hindus possessed. The four dancing girls evidently represent the four satellites of Jupiter. These circumjovial satellites (as they are styled by modern astronomers from the quirk of their motions in their orbits) were not known in Europe before the year 1609, and the third and fourth only are visible, and this but rarely and in the clearest atmosphere to the naked eye. But it is truly interesting and curious that the figure of Saturn should be represented with seven arms. At the time Colonel Pearse wrote his letter to the Royal Society, the sixth satellite of Saturn had not been discovered: it was first discovered by Herschel on the 28 August 1789; and the seventh satellite, which the seventh arm of the figure, without dispute, must be intended to represent, was not discovered by Herschel until he had completed his grand telescope of 40 feet focal length, when it was first observed by him on the 17 September 1789. All the satellites of Saturn are so small, and the planet is so remote from the earth, that the best telescopes are necessary for observing them. May not the seventh arm *having hold of the ring* denote a circumstance connected with the orbits of these planets, which is that the planes of their orbits so nearly accord with that of the ring, that the difference is not perceptible? Undoubtedly, the ancient astronomers must have possessed the best instruments: probably differing from modern ones, but fully as powerful.

The writer added further: 'We are not aware that the Royal Society in any of its printed papers have noticed Colonel Pearse's communication, but our imagination, warmly interested as it has been in all that relates to the subject of the present memoir, has pictured the probability that Colonel Pearse's paper may have met the eye of Herschel, and may have been an additional spur to the indefatigable and wonderful labours of that great man.'[15]

Reuben Burrow's unpublished paper (Chapter III) was addressed to the British Governor General Warren Hastings soon after Burrow had come to India to take up his new job at Calcutta. It is highly speculative and in a way is more in line with the contemporary intellectual tradition of the European enlightenment of the eighteenth century. (The tradition has, in fact, continued well into the present time; only as time passed, however, it has become more and more Eurocentric. The late 19th century dictum, 'Except the blind forces of nature, nothing moves in this world which is not Greek in its origin,' enunciated by Maine (one-time Law Member of the Governor General's Council in India) was merely an intellectual and scholarly expression of the mounting Eurocentric character of this speculativeness.) Though in itself it does not provide much factual data, and perhaps comes to even several erroneous conclusions as we would see them today, its very speculativeness seems to have provided inspiration and stimulus to a number of subsequent enquiries about Indian sciences, particularly mathematics. The article 'A Proof that the Hindus had the Binomial Theorem' by Burrow himself, and the later dissertation by H.T. Colebrooke on 'Hindu Algebra' (given as introduction to his translation of 'Algebra with Arithmetic and Mensuration' of Brahmagupta and Bhascara) decidedly follow such speculativeness. Acknowledging Burrow's contribution, particularly in bringing Indian Algebra to the notice of Europeans, the article on 'Algebra' in the *Encyclopaedia Britannica* (8th edition) stated:

> We are indebted, we believe, to Mr Reuben Burrow for some of the earliest notices which reached Europe on this very curious subject. His eagerness to illustrate the history of the mathematical sciences led him to collect oriental manuscripts, some of which in the Persian language, with partial translations, were bequeathed to his friend Mr Dalby of the Royal Military College, who communicated them to such as took an interest in the subject, about the year 1800.[16]

The article (Chapter V) on 'the Binomial Theorem' was published in 1790 in Calcutta. Till then, and in British reference books like the *Encyclopaedia Britannica* well into the twentieth century, the discovery of this theorem has been credited to Newton.[17] Some thirty years later, Burrow's article was followed by another titled 'Essay on the Binomial Theorem; as known to the Arabs'.[18] This later article was a sequel to the first by R. Burrow, and it concluded: 'It plainly appears, that whatever may have been the case in Europe, yet long before the time of Briggs the Arabians were acquainted with' the Binomial Theorem.

(Briggs was teaching around 1600, about a century before Newton).

This later author quoted Dr Hutton concerning the origin of the Binomial Theorem in Europe. The following, from the longer extract of Hutton's account, is worth quoting:

> Lucas De Burgo extracted the cube root by the same coefficients, about the year 1470...Briggs was the first who taught the rule for generating the coefficients of the terms, successively one from another, of any powers of a binomial, independent of those of any other power...This theorem then being thus plainly taught by Briggs about the year 1600, it is surprising how a man of such general reading as Dr Wallis was, could be ignorant of it...and fully ascribe the invention to Newton...But I do not wonder that Briggs remark was unknown to Newton, who owed almost everything to genius and deep meditation, but very little to reading: and I have no doubt that he made the discovery himself, without any light from Briggs.[19]

H.T. Colebrooke's dissertation on 'Hindu Algebra', resulting from all the preceding investigations by men like R. Burrow, F. Wilford, S. Davis, Edward Strachey, John Taylor, etc., and from his own considerable knowledge, is a learned survey and comparison of the developments in Europe and India. But the conclusion that Indian Algebra, etc., may have had an independent development proves difficult for him to digest. Reversing the speculations of Burrow, he comes to the conclusion that the 'Algebra of the Greeks', imperfect though he admits it to be, 'was made known to the Hindus by their Grecian instructors in improved astronomy.' (The reviewer of 'Algebra, with Arithmetic and Mensuration', in *The Edinburgh Review* (November 1817) however thought differently and stated that it 'could not have been derived from Greece.' Commenting on Colebrooke's opinion he added: 'Mr Colebrooke, after demonstrating the excellence of this algebra, and comparing its more perfect algorithm and its superior advancement with the Greek algebra, as explained in the work of Diophantus, seems nevertheless willing to admit, that some communication about the time of the last mentioned author, may have come from Greece to India, on the subject of the Algebraic Analysis. Of this we are inclined to doubt; for this simple reason, that the Greeks had nothing to give on that subject which it was worth the while of the Indians to receive. Mr Colebrooke seems inclined to this concession, by the strength of a philological argument, of the force of which we are perhaps not sufficiently sensible. It seems however certain, that the facts in the history of Algebraic Analysis, taken by themselves, give no countenance to the supposition.') But wishing to be gracious and charitable, he infers that 'by the ingenuity of the Hindu scholars, the hint was rendered fruitful and the algebraic method was soon ripened from that slender beginning to the advanced state of a well arranged science.'[20]

III

As contrasted with the eighteenth century European consideration and discussion on Indian sciences, the accounts of Indian technology did not give rise to passionate controversy. Perhaps such passion was neither possible nor necessary, as it ordinarily did not challenge any fundamental European dogma or belief. The results of the technology were there for all to observe and utilise. And it may incidentally be the lack of such controversy itself that explains the complete current ignorance of most aspects of this technology.

It appears that Indian medical men (with whatever names they may be termed at the end of the eighteenth century) made considerable use of surgical techniques in different parts of India. According to Colonel Kyd in 'Chirurgery (in which they are considered by us the least advanced) they often succeed, in removing ulcers and cutaneous irruptions of the worst kind, which have baffled the skill of our surgeons, by the process of inducing inflammation and by means directly opposite to ours, and which they have probably long been in possession of.'[21] Dr H. Scott (Chapter XVII) seems to corroborate the above and further reports the prevalence of plastic surgery in Western India, in his letters to the President of the Royal Society, London. In 1972, he states:

> In medicine I shall not be able to praise their science very much. It is one of those arts which is too delicate in its nature to bear war and oppression and the revolutions of governments. The effects of surgical operation are more obvious, more easily acquired and lost by no means so readily. Here I should have much to praise. They practice with great success the operation of depressing the crystalline lens when become opaque and from time immemorial they have

> cut for the stone at the same place which they now do in Europe. These are curious facts and I believe unknown before to us.[22]

Two years later he refers to the 'putting on noses on those who lost them' and sends to London a quantity of 'Caute', the cement used for 'uniting animal parts'.[23]

Inoculation against the smallpox seems to have been universal, if not throughout, in large parts of Northern and Southern India, till it was banned in Calcutta and other places under the Bengal Presidency (and perhaps elsewhere) from around 1802-3. Its banning, undoubtedly, was done in the name of 'humanity', and justified by the Superintendent General of Vaccine (A vaccine (the Latin *vacca*, meaning cow) from the cow, for use in the inoculation against smallpox was manufactured by Dr E. Jenner in 1798. From then on, this vaccine replaced the previous 'variolous' matter, taken from human agents. Hence the method using the 'vaccine' came to be called 'Vaccine Inoculation'.) Inoculation in his first report in March 1804.[24]

The most detailed account of the practice of inoculation against the smallpox in India is by J.Z. Holwell, written by him for the College of Physicians in London.

After giving the details of the indigenous practice, Holwell stated (Chapter VIII, pg 158): 'When the before recited treatment of the inoculated is strictly followed, it is next to a miracle to hear, that one in a million fails of receiving the infection, or of one that miscarries under it.' It is possible that Holwell's information was not as accurate as of the newly appointed Superintendent General of Vaccine Inoculation in 1804. According to the latter, fatalities amongst the inoculated were around one in two hundred amongst the Indian population and amongst the Europeans in Calcutta, etc., 'one in sixty or seventy'.[25] The wider risk, however, seems to have been in the spreading of disease by contagion from the inoculated themselves to those who for one reason or another had not been thus inoculated.

It is possible that there were some areas in India where inoculation did not prevail. This, of course, is a matter for enquiry. But wherever it did, it appears to have been universal over a whole tract. After the imposition of British rule in Bengal, Bihar, Orissa, areas of Madras Presidency, etc., this situation seems to alter. According to the Superintendent General of Vaccine Inoculation, a section of the people, either 'from indigence' or 'from principle', did not any longer (*circa* 1800) receive the inoculation.[26] Those who did not receive it 'from principle' seem to have been the Europeans in Calcutta, etc. Partly this may have been due to the greater mortality (i.e. one in sixty or seventy, as indicated above) amongst them. Further it may have also resulted from the persistence of Christian theological objections to any inoculation amongst them.[27]

Not receiving it 'from indigence', on the other hand, pertained to sections of the Indian population. Like many other categories of specialists, (including school teachers, doctors, establishments of religious institutions and places, village establishments, etc.), it is probable that the inoculators in India had also been maintained on subventions from public revenues. With the imposition of British rule, the Indian fiscal system began to collapse and various categories of specialists and functionaries were thrown out on the streets and left to wholly fend for themselves. It is this development, and the simultaneous deepening of poverty amongst the people, that most probably resulted in many not being inoculated 'from indigence'. Such a situation must have naturally made the practice of inoculation seem even more undesirable to the Europeans who, while they themselves did not like to be inoculated, yet could not function without whole contingents of Indian domestic servants.

So what, till the latter part of the eighteenth century, when practised universally in any tract, was a relatively effective method involving no contagious effects (since all were similarly inoculated), had begun to seem by 1800 a great hazard to the Europeans in Calcutta. But in spite of the bannings, prohibitions, etc. resorted to in Calcutta and other cities and towns, the introduction of vaccine inoculation was very halting. Such halting development must have been caused by insufficient provision of resources or by sheer indifference. Or, as hinted by the officiating Superintendent General of Vaccination for N.W.P. (the present U.P.) in 1870, it may also have been caused by the peoples' reluctance to get vaccinated as, according to this authority, the indigenous inoculation possessed 'more protective power than is possessed by vaccination performed in a damp climate.'[28] Whatever the causes, the indigenous inoculation seems to have been still practised around 1870. For areas near Calcutta, those who were not so inoculated are estimated at 10 per cent of the population around 1870, and for the Benares area at 36 per cent.[29] The frequent smallpox epidemics which were rampant in various parts of India in the nineteenth and early twentieth century may largely be traced back, on the one hand, to the state's backwardness and indifference in making the requisite arrangement for universal vaccination; and on the other hand, to having made the existence of the indigenous practice of inoculation most difficult not only by withdrawing all support for it, but also forcing it to be practised secretly and stealthily.

Another important point which emerges from Mr Holwell's account of the Indian method of inoculation relates to the prevalence of some theory of bacterial infection amongst the mid-eighteenth century Indian inoculators. According to them: 'The small-pox is more or less epidemical, more mild or malignant, in proportion as the air is charged with these animalculae', i.e. bacteria, and that these 'adhere more closely, and in greater numbers, to glutinous, fat, and oily substances.' That these '*imperceptible animalculae* floating in the atmosphere...are the cause of all epidemical diseases, but more particularly of the small-pox;' that 'they pass and repass in and out of the bodies of all animals in the act of respiration, without injury to themselves, or the bodies they pass through;' but 'such is not the case with those that are taken in with food,' as these 'are conveyed into the blood, where, in a certain time, their malignant juices excite a fermentation' and end 'in an eruption on the skin.'[30]

Similarly interesting accounts are available on Indian agriculture. The observation by Alexander Walker (Chapter XII), that 'the practice of watering and irrigation is not peculiar to the husbandry of India, but it has probably been carried there to a greater extent, and more laborious ingenuity displayed in it than in any other country,'[31] is in dramatic contrast to present day text-book accounts of ‘the comparative absence of artificial irrigation’ in eighteenth century India.[32] How Indian agricultural principles, implements and practices (and these may have somewhat varied in different parts of India itself) compared with those elsewhere (China, Egypt, various countries of Europe, etc.), can only be known after a detailed comparative study of the subject. The causes of relative scarcity of resources constantly facing the Indian husbandman also need to be enquired into. It is probable that in most parts of India such scarcity was of late eighteenth century origin, and directly resulted from political causes. But it seems clear that besides widespread artificial irrigation, the practices of (i) crop rotation, (ii) manuring, (iii) sowing by means of the drill plough, and (iv) use of a variety of other implements were fairly widespread. The nature and quality of soils seemed to be well understood and in areas like Malabar, certain species of paddy are propagated by cuttings. The use of the drill plough, however, (and perhaps also of some other implements and practices), as noted in Chapter XIII, varied from husbandman to husbandman, the poor not being in a position to use it as it required larger resources not only in implements but also in draught cattle. The latter-day decline in the variety and efficiency of agricultural implements seems to be a result of the general economic impoverishment brought about by the state appropriating all it possibly could in the late eighteenth and the nineteenth centuries. (The material concerning the proportion of the gross produce of agriculture taken away by the state constitutes a major portion of British Indian archival documents. Theoretically, the land revenue due to government was fixed at 50%. In large parts of India under British rule till 1855 or so, the proportion that during most years actually went towards governmental land revenue was appreciably higher. For instance, according to certain enquiries in the Madras Presidency Ryotwary areas during the 1850s, about one-third of the irrigated land had over the years altogether gone out of cultivation as the amount of land revenue on such land had begun to approximate the gross produce itself, and at times even exceeded it.)

The composition of the ‘Madrass Mortar’ (Chapter IX) is very curious, while the process of making paper (Chapter XI) is perhaps not very different from that currently in use in the manufacture of hand-made paper. Chapter X, on the process of making ice, however, is still more fascinating. It was first published in 1775 in London. But it appears that this subject and the manner in which ice was made had been observed even earlier by a number of Britishers in India and had given rise to considerable scientific curiosity in England. The artificial making of ice seems to have been till then unknown in Britain (and perhaps also in other European countries). The observation that 'boiling the water is esteemed a necessary preparative to this method of congelation' aroused particular interest. Sir Robert Barker, the author of this article, while referring to this point wondered 'how far this may be consonant with philosophical reasoning' (i.e., with scientific proof). As a consequence, after carrying out various experiments, the professor of Chemistry at Edinburgh University provided the following explanation:

> The boiled and common water differ from one another in this respect; that whereas the common water, when exposed in a state of tranquility to air that is a few degrees colder than the freezing point, may easily be cooled to the degree of such air, and still continue perfectly fluid, provided it still remains undisturbed: the boiled water, on the contrary, cannot be preserved fluid in these circumstances; but when cooled down to the freezing point, if we attempt to make it the least colder, a part of it is immediately changed into ice; after which, by the continued action of the cold air upon it, more ice is formed in it every moment, until the whole of it gradually congealed before it can become as cold as the air that surrounds it. From this discovery it is easy to understand, why they find it necessary to boil the water in India, in order to obtain ice.[33]

Dr H. Scott (Chapter XVII) makes mention of many other processes and dyeing and other agents and substances. 'Dammer: a substance in universal use through the whole Eastern world,'[34] for covering the bottom of ships and for other uses where water proofing was required, was one such.

But the substance which seems to have evoked most scientific and technical interest in the Britain of the 1790s was the sample of *wootz* steel sent by Dr Scott to Sir J. Banks, the President of the British Royal Society. The sample went through examination and analysis by several experts.[35] It was found in general to match the best steel then available in Britain, and according to one user, 'promises to be of importance to the manufactures' of Britain.[36] He found it 'excellently adapted for the purpose of fine cutlery, and particularly for all edge instruments used for surgical purposes.' After its being sent as a sample in 1794 and its examination and analysis in late 1794 and early 1795, it began to be much in demand; and some 18 years later the afore-quoted user of steel stated, 'I have at this time a liberal supply of *wootz*, and I intend to use it for many purposes. If a better steel is offered to me, I will gladly attend to it; but the steel of India is decidedly the best I have yet met with.'[37]

Till well into the nineteenth century, Britain produced very little of the steel it required and imported it mostly from Sweden, Russia, etc. Partly, Britain's lag in steel production was due to the inferior quality of its iron ore, and the fuel, i.e., coal, it used. (Writing in 1824, J.M. Heath, later a leading manufacturer of iron and steel at Sheffield, stated: 'It is well known that England is entirely dependent upon foreign countries for all the iron required for this purpose, and last year the importation of foreign iron into England, for the purpose of making steel alone, exceeded 12,000 tons...Year after year does the Society for the Encouragement of Arts offer a premium for the manufacture of English Iron fit for steel making, and to this time the premium has never been claimed; nor is it likely that it ever will, from the nature of the English ores, and the inferior quality of the English fuel.' (*Madras Public Proceedings*, January 1825)) Possibly such lag also resulted from Britain's backwardness in the comprehension of processes and theories on which the production of good steel depended.

Whatever may have been the understanding in the other European countries regarding the details of the processes employed in the manufacture of Indian steel, the British, at the time *wootz* was examined and analysed by them, concluded 'that it is made directly from the ore; and consequently that it has never been in the state of wrought iron.'[38] Its qualities were thus ascribed to the quality of the ore from which it came and these qualities were considered to have little to do with the techniques and processes employed by the Indian manufacturers. In fact it was felt that the various cakes of *wootz* were of uneven texture and the cause of such imperfection and defects was thought to lie in the crudeness of the techniques employed.

It was only some three decades later that this view was revised. An earlier revision in fact, even when confronted with contrary evidence as was made available by other observers of the Indian techniques and processes, was an intellectual impossibility. 'That iron could be converted into cast steel by fusing it in a close vessel in contact with carbon' was yet to be discovered, and it was only in 1825 that a British manufacturer 'took out a patent for converting iron into steel by exposing it to the action of carburetted hydrogen gas in a close vessel, at a very high temperature, by which means the process of conversion is completed in a few hours, while by the old method, it was the work of from 14 to 20 days.'[39]

According to J.M. Heath, founder of the Indian Iron and Steel Company, and later prominently connected with the development of steel making in Sheffield, the Indian process appeared to combine both of the above early nineteenth century British discoveries. He observed:

> Now it appears to me that the Indian process combines the principles of both the above described methods. On elevating the temperature of the crucible containing pure iron, and dry wood, and green leaves, an abundant evolution of carburetted hydrogen gas would take place from the vegetable matter, and as its escape would be prevented by the luting at the mouth of the crucible, it would be retained in contact with the iron, which, at a high temperature, appears [from the above-mentioned patent process] to have a much greater affinity for gaseous than for concrete carbon; this would greatly shorten the operation, and probably at a much lower temperature than were the iron in contact with charcoal powder.[40]

And he added:

> In no other way can I account for the fact that iron is converted into cast steel by the natives of India, in two hours and a half, with an application of heat, that, in this country, would be considered quite inadequate to produce such an effect; while at Sheffield it requires at least four hours to melt blistered steel in wind-furnaces of the best construction, although the crucibles in which the steel is melted, are at a white heat when the metal is put into them, and in the Indian process, the crucibles are put into the furnace quite cold.[41]

The above quoted British authority however did not imply that the Indian practice was based on a knowledge 'of the theory of his operations' by the Indian manufacturer. He felt it to be impossible 'that the process was discovered by any scientific induction, for the theory of it can only be explained by the lights of modern chemistry.'[42] And feeling that 'all speculation upon the origin of the discovery seems useless', he proceeded to deal with the more practical matters.

Several scores of British accounts (some more, some less detailed) pertaining to widely separated areas of India, and perhaps pertaining to about a hundred districts, are available on the Indian manufacture of iron and steel. Though some date to the 1790s, most were written during the period 1820-1855. That included in Chapter XV is probably the most graphic and detailed amongst them, while the one in Chapter XVI tries to provide some perspective and comparison of the different processes and corresponding details prevailing in different countries. Though there seems to be some fairly detailed accounts of the process of Indian iron and steel manufacture in other European languages dating back to the late seventeenth century,[43] that in Chapter XIV is probably one of the earliest British accounts of it.

The design, measurements, and construction of the furnaces and accessory implements, described in Chapter XV, require much detailed examination by experts. Similar examination is essential of the large amounts of data provided in Chapters

XV and XVI. But a cursory study of the data seems to indicate that the proportion of iron recovered from the ore and the amount of charcoal required to produce a given quantity of crude iron in Central India is comparable with the respective ratios pertaining to the manufacture of iron and steel in Sweden, etc. It is possible that these quantities varied considerably in different parts of India. Maybe, with the continuous deterioration which had set in, the consumption of fuel in the production of iron increased considerably. It is perhaps due to this later development, or basing himself on the data from some selected areas, that Mahadeva Govind Ranade remarked (in the 1890s) that indigenous Indian 'processes involve a great waste of power and resources, as much as fourteen tons of fuel being required to produce one ton of iron.' And thus he concluded: 'Besides the effects of foreign competitors, the collapse of the iron industry has been brought about by the increasing scarcity of fuel.'[44]

According to Chapter XV,[45] 140 seers of charcoal produced 70 seers of crude iron at Aggeriya, etc., in the district of Jabalpur. At Jowli, in the same district, 165 seers of charcoal were required to produce 77 seers of crude iron. How much charcoal was required to convert the crude into malleable and wrought iron is not indicated in Chapter XV. However, considering that the amount of charcoal required to convert the ore into crude iron is of the same order as the quantities required in European countries, it may be inferred that the requirement of fuel in subsequent processes would not have been very different.

It is not easy to estimate the total number of such furnaces which may have been in operation in various parts of India in the eighteenth century. Certain mid-nineteenth century enumerations, however, place the number of furnaces operating in certain districts, talooks, etc., in hundreds. It is, therefore, probable that the number of iron and steel furnaces functioning throughout India in the latter part of the eighteenth century was in the region of 10,000. According to the data given in Chapter XV, the production of iron per furnace amounted to somewhat above half a ton per week. Assuming that a furnace on an average worked about 35-40 weeks a year, the potential production of iron per furnace may be assumed at 20 tons annually.

Besides the furnaces and accessories so graphically described in Chapter XV, certain other devices varying from area to area also appear to have been used in Indian metallurgy. One such was the use of the *Panchakki* (water-mill) in the crushing of ore by the manufacturers of Kumaon and Garhwal. According to J.D. Herbert and J. Manson 'in reducing the ore to fragments, the Dhunpoor miners employ the *Panchakki* or water-mill. When water is present no better plan can be devised.'[46]

Several questions arise out of the material on technology described and discussed here. One of them arises from the generally shared European opinion—at times asserted—that the Indian manufacturer of iron and steel (and, in other instances, of other commodities, or practitioners in other professions) could not have had any knowledge 'of the theory of his operations'. Though such opinions essentially originated from the ethnocentric views and inclinations (Even the British Royal Society does not seem to have remained untouched from such inclinations. Referring to the letter of Dr Scott on *wootz,* it quoted him as having written that it 'admits of a harder temper than anything known in that part of India.' What Dr Scott had actually stated was that 'it appears to admit of a harder temper than anything we are acquainted with.' As is obvious, Dr Scott's 'we' implied 'we in Europe'. But as this must have seemed inadmissible in the pages of the *Philosophical Transactions*, the observation got altered to 'than anything known in that part of India.' (See *Philosophical Transactions*, vol.85, p.322; and chapter XVII, pp.256 in this volume).) of the societies to which such observers belonged, and were not in their essence derived from the subject observed and described, these, as mere statements which generally hold true at all times, need not be disputed. But most practitioners of a profession which they have learnt after a long apprenticeship and in which their essential job is to repeat ever more perfectly what they had done before, never require, and seldom possess, such knowledge. The possession of such knowledge and its development and refinement is, at all times, the function of a separate, though interlinked, group. Such division between the practitioners and the theoreticians is currently more evident than ever before.

It is possible that the link between the practitioners of the various techniques or professions and the professors of the theoretical knowledge relating to them had largely snapped in India by the end of the eighteenth century. It is even probable that though not altogether snapped, such a break had begun to take place centuries earlier. This, however, is a view which cannot be determined by mere conjecture. Its substantiation requires detailed studies of Indian techniques and processes as they operated over several centuries up until the early nineteenth.

Even if these links had already snapped but the practices had continued, it is very probable that in a changed political climate—resulting, for instance, from the success of the early eighteenth century resurgence—they could have been restored by fresh interaction between the practitioners and the surviving professors with their knowledge of the theoretical aspects. Or even forged anew.

Another question that arises from the above discussion on the manufacture of Indian iron and steel is that if the manufacturing processes were so very superior and widespread throughout the country, why did they disappear? So far, our knowledge of such widespread manufacture has itself been very scanty. Therefore, answers to such a question at present can merely be tentative. The disappearance seems to have resulted mainly from large-scale economic breakdown resulting from hostile state policy. From about 1800 onwards, India was to be treated as a consumer of British manufactures. Yet some of the British in India did visualise the undertaking of large scale production of iron and steel in India. But even they, when they came forth with such plans, were at great pains in stating that such production would in no way injure the production in Britain or the consumption of British iron in India. Even this type of proposition was, however, difficult for the British Government to contemplate. For example, replying to an early application for setting up such works in the Bengal area, the London authorities in 1814 stated: 'But as we entertain strong doubts as to the policy of encouraging the prosecution of such works to any extent, we direct that no further expense may be incurred.'[47]

IV

Many other aspects of science and technology are not at all referred to in the accounts which are reproduced in the following pages. Textiles, armaments, horticultural techniques, or the breeding of animals are among those omitted aspects. The design or construction of boats and other sea-faring vessels are also not referred to. A mention in this respect may, however, be made of an observation made by Solvyns in the *Les Hindous*. Introducing the 40 or so sketches of boats and river vessels in use in Northern India in the 1790s, he observed: 'The English, attentive to everything which relates to naval architecture, have borrowed from the Hindoos many improvements which they have adapted with success to their own shipping.'[48] Commenting on Indian rowing, an early eighteenth century observer remarked: 'Their water-men row after a different manner from ours. They move the oar with their feet, and their hands serve instead of the *hypomochlion*, or roller on which it turns.'[49]

It is not as if nothing at all is known of the various accounts reproduced in this volume. Chapters I, II, V and VI dealing with astronomy and mathematics are perhaps known to many concerned scholars. The accounts dealing with the manufacture of paper, the composition of the 'Madrass Mortar' and Iron Works at Ramanakapettah are possibly known to a still wider circle. Even the practice of inoculation against the smallpox is known to have existed in ancient times in India, for, according to one modern writer: 'Preventive inoculation against the smallpox, which was practised in China from the eleventh century, apparently came from India.'[50] Something also seems to be known about the manufacture of iron and steel in Salem through the writings about it by Campbell, the Assistant Surveyor General, Madras. Ranade himself seems to have been fairly well informed about the export of *wootz* to England and other countries, though he leaves the time vague

But all this knowledge among the scholars and prominent writers on Indian economics has not so far created any general awareness of the teaching and practice of these sciences and technologies, or the questioning of the prevailing hypothesis of 'the eighteenth century' being 'the darkest period' in Indian history,[51] etc. The reasons for the lack of appropriate awareness or the prevailing indifference are manifold. Primarily the responsibility for such a situation lies with the system of education which has prevailed in independent India, which by nurturing indifference, even contempt, for everything indigenous effectively blocks such enquiries.

The intellectual basis of the contempt and indifference which began to grow around the close of the eighteenth century, is perhaps best illustrated by the article on 'Algebra' in the *Encyclopaedia Britannica*, in its 8th edition (1850). Discussing Indian Algebra, it referred to a review by Prof John Playfair, of Colebrooke's work on Indian Algebra, and observed:

> This last article, published in 1817, may be supposed to contain the matured opinions of one of the most ardent, able, and we must say most candid, enquirers into the history of Hindoo mathematical science. There is here certainly an abatement of his first confidence in the opinion of Bailly on the Indian astronomy, and a corresponding caution in his own opinion as to the antiquity of the mathematical sciences. The very remote origin of the Indian Astronomy had been strongly questioned by many in this country, and also on the Continent; particularly by Laplace, also by Delambre in his *Histoire de l'Astronomie Ancienne*, tome i.p.400, & c., and again *Histoire de l'Astronomie du Moyen Age*, *Discourse Preliminaire*, p.8, & c., where he speaks slightingly of their algebra.

The article added: 'And in this country, Prof. Leslie, in his very learned work on *The Philosophy of Arithmetic*, pp.225 and 226, calls the *Lilavati* "a very poor performance, containing merely a few scanty precepts couched in obscure memorial verses".'

Playfair's observations, alluded to on this occasion, while differing from the views of Leslie etc., expressed some scholarly scepticism of the Indians' capacity in mathematical sciences. He had said:

> Among many subjects of wonder which the study of these ancient fragments cannot fail to suggest, it is not one of the

> least that algebra has existed in India, and has been cultivated for more than 1200 years, without any signal improvement, or the addition of any material discovery. The works of the ancient teachers of science have been commented on, elucidated, and explained with skill and learning; but no new methods have been invented, nor any new principle introduced. The method of resolving indeterminate problems, that constitute the highest merit of their analytical science, were known to Brahmagupta hardly less accurately than to Bhascara; and they appear to have been understood even by Aryabhata, more ancient by several centuries than either. A long series of scholiasts display in their annotations great acuteness, intelligence, and judgement; but they never pass far beyond the line drawn by their predecessors, which probably seemed even to those learned and intelligent men as the barrier within which it was to be confined. In India, indeed, everything seems equally insurmountable, and truth and error are equally assured of permanence in the stations they have once occupied. The politics, the laws, the religion, the science, and the manners, seem all nearly the same as at the remotest period to which history extends. Is it because the power which brought about a certain degree of civilisation, and advanced science to a certain height, has either ceased to act, or has met with such a resistance as it is barely able to overcome? Or is it because the discoveries which the Hindoos are in possession of are an inheritance from some more inventive and more ancient people, of whom no memorial remains but some of their attainments in science?[52]

The choice of this passage during the 1850s by the *Encyclopaedia Britannica* was in keeping with the sentiments of the period. But the 24 page unsigned article in the *Edinburgh Review* (Nov. 1817), from which this sceptical passage is taken, had also said many other things. Earlier in the article, Playfair observed:

> A commentary on the *Vija Ganita*, bearing the date of 1602, contains a full exposition of the sense, with complete demonstrations of the rules, much in the manner of Ganesa; and there is a scholiast of a still later date, who appears to have flourished about the year 1621. If, therefore, it be true, that the Hindus of the present time understand nothing

> of their scientific books the decline of knowledge among them must have been very rapid, as it is plain that, at the distance, of less than two centuries from the present time, the light of science was shining in India with considerable lustre.

Proceeding further while deploring the lack of 'analysis' even in the *Vija Ganita*, he noted that Brahmagupta had given 'a solution that appears quite general' concerning 'Indeterminate Problems'. And he observed: 'The solution then of a very difficult problem given by an Indian Algebraist, more than 1200 years ago, is such as can vie with those of two of the mathematicians the most distinguished for genius and invention which Europe could boast of ever having seen, at the end of the eighteenth century.' Dismissing that the finding of such a solution by Brahmagupta may have been due to chance, he added, 'there are inquiries where chance and accident have great influence and where a man of very inferior genius and knowledge may make great discoveries. But the subject we are treating of here, is not of that number; it is one where no one *finds*, who does not know how to *search*; and where there is no reward but for intense thought, and patient inquiry.'

Given the doubts of academicians like Playfair, Laplace, Delambre, etc., as well as the supporting role of the fast multiplying tribe of 'oriental scholars' amongst the servants of the British authorities in India (including those amongst the missionaries), Macaulay's verdict on Indian sciences and learning was inevitable. Only Macaulay expresses such doubts and contempt with greater drama and bombast. But what he said, in his minute of 2 February 1835, was shared fully not only by the then British Governor General of India, Bentinck ('I give my entire concurrence to the sentiments expressed in this minute'), but practically by every other learned or powerful European. Referring to the orientalists Macaulay observed:

> I have never found one amongst them who could deny that a single shelf of a good European library was worth the whole native literature of India and Arabia. The intrinsic superiority of the western literature is indeed fully admitted by those members of the committee [of Public Instruction] who support the oriental plan of education.

And then he added:

> It will hardly be disputed, I suppose, that the department of literature in which the Eastern writers stand highest is

> poetry. And I certainly never met with any orientalist who ventured to maintain that the Arabic and Sanskrit poetry could be compared to that of the great European nations. But when we pass from works of imagination to works in which facts are recorded and general principles investigated, the superiority of the Europeans becomes absolutely immeasurable. It is, I believe, no exaggeration to say that all the historical information which has been collected from all the books written in the Sanskrit language is less valuable than what may be found in the most paltry abridgement used at preparatory schools in England. In every branch of physical or moral philosophy the relative position of the two nations is nearly the same.

Concluding, Macaulay refused to associate himself with any support or assistance to Indian learning and declaimed:

> If on the other hand, it be the opinion of the Government that the present system ought to remain unchanged, I beg that I may be permitted to retire from the chair of the committee. I feel that I could not be of the smallest use to them. I feel also that I should be lending my countenance to what I firmly believe to be a mere delusion. I believe that the present system tends not to accelerate the progress of truth but to delay the natural death of expiring errors. I conceive that we have at present no right to the respectable name of a Board of Public Instruction. We are a Board for wasting the public money, for printing books which are of less value than the paper on which they are printed was while it was blank,—for giving artificial encouragement to absurd history, absurd metaphysics, absurd physics, absurd theology,—for raising up a breed of scholars who find their scholarship an encumbrance and a blemish, who live on the public while they are receiving their education, and whose education is so utterly useless to them that, when they have received it, they must either starve or live on the public all the rest of their lives. Entertaining these opinions I am naturally desirous to decline all share in the responsibility of a body which, unless it alters its whole mode of proceedings, I must consider not merely as useless, but as positively noxious.[53]

Remarks, observations, threats and declamations, like those quoted above, have shaped all the writing and teaching about India, and more or less continue to do so, in the manner and direction indicated by Macaulay and by his more (though less known in India) powerful precursors like William Wilberforce and James Mill.[54] Ignorance, apathy and utter mental confusion, particularly about life and society in the eighteenth century not only in India but in West Europe itself, are the natural products of such writing and teaching.

The doubts and declamations (of Playfair, Laplace, Macaulay, etc.), however, are not the sole causes of this ignorance and apathy. These seem to arise, partly, from much deeper issues which pertain to the conflicting hypotheses about state and society. The seventeenth, eighteenth and nineteenth centuries' European view of society, and thus of science, technology, politics, etc., was diametrically at variance with the views about them held by non-European societies during the same period.

Consequently, the sciences and technologies of the non-European world also had different seekings and developments to those of Europe. Further, in countries like India, their organisation was in tune with their more decentralist politics and there was no seeking to make their tools and work places unnecessarily gigantic and grandiose. Smallness and simplicity of construction, as of the iron and steel furnaces or of the drill ploughs, was in fact due to social and political maturity as well as arising from understanding of the principles and processes involved. Instead of being crude, the processes and tools of eighteenth century India appear to have developed from a great deal of sophistication in theory and a heightened sense of the aesthetic.

It is in such a context that a man like Voltaire considered India 'famous for its laws and sciences', and deplored the mounting European preoccupation (both individual and national) of those in India with the amassing of 'immense fortunes'. This quest for riches intensified the struggles, plunder, etc., during his own time, and made him remark: 'If the Indians had remained unknown to the Tartars and to us, they would have been the happiest people in the world.'[55] Looking back at what has happened since he wrote these lines, Voltaire seems to have been very perceptive in his judgment. But the whole world, if such contacts had not occurred, would have been very different not only in politics and society but also in science and technology. Speculations about what it may have been, though fascinating, are far beyond the scope of this volume.

A question yet remains: Why have sciences and technologies—which seem to have been very much alive about 8-10 generations ago—been wholly eclipsed? Answers about the causes of such an eclipse are very complex. Some of them are also—till there is systematic and detailed research available about Indian science and society—largely speculative. A few of them may, however, be suggested here.

The first is related to the economic breakdown of India during 1750-1900.

We may argue about the nature and intensity of exploitation of the agricultural and manufacturing population, or about the question of what happened to the money and goods extorted (the 50 per cent of the gross agricultural product compulsorily taken as governmental land revenue is a good example). But there can be no dispute that the breakdown of the economy was overwhelming and total. No sciences or technologies can survive intact such catastrophe.

The second point relates to the contrary nature of the new state fiscal system when compared with the indigenous system (or systems) prevailing at the commencement of the European impact. It seems that the indigenous budgeting of state revenues (whether for larger or smaller political entities and through various in-built devices) left the overwhelming proportion of revenue at the local levels.

The British-created fiscal system, on the other hand, doubled or trebled the rates of various assessments and effectively brought all people under its sway; taking away the overwhelming proportions to the central exchequers as well as to the metropolises and places above them. Studied neglect and contempt added to the economic breakdown and the transformation of the fiscal system. This to my mind completed the uprooting and elimination of indigenous sciences and technologies not only from society but from Indian memory itself.

Finally, the notion that all these sciences and technologies have wholly disappeared is not altogether true. Remnants of many still exist and continue to be of use; but, at a most neglected and impoverished level. For instance, it is said that some aspects of indigenous plastic surgery were being practised till fairly recently in places as far apart as Kangra and Junagadh.[56]

There are many philosophical formulations regarding the growth and decline of human societies (or the various stages which they are supposed to pass through). The theory of atrophy (as usually applied to India) is one of them. It is possible that it also has some relevance in explaining the growth, flowering and decline of Indian society. Though the contemporary data, as separate from opinions and formulations, does not seem to indicate that the eighteenth century sciences and technologies in India had atrophied, some of them may well have been in such a state. It is possible that various other current or past formulations on the subject of growth and decline of human societies also have some contribution to make in explaining what happened to Indian science and society over the millennia.

Whatever may be the actual relevance of the theory of atrophy or other theories of European origin in explaining the development of Indian society, it appears much more probable that in most respects the sciences and technologies of India had reached a desirable balance and equilibrium much before the eighteenth century. In the context of the values and aptitudes of Indian culture and social norms (and the consequent political structure and institutions), the sciences and technologies of India, instead of being in a state of atrophy, were in actuality usefully performing the tasks desired by Indian society. It is the application of unrelated standards and judgments (particularly those emanating from eighteenth-nineteenth century Europe) which hide and distort the actual situation and relationship.

V

Although organisationally weak in a military-political sense, in most respects the political and social ideas of India (like its legal and administrative arrangements as well as sciences and technologies) had achieved maturity and balance at some time previous to its present day contacts with the European world. Its social and political structure at this period, though seemingly different from those that obtain in the European world of today, was able to provide of freedom, well-being and social security basically similar to those at present available in much of the European world. It also seems to have had somewhat similar ideas about ruler-ruled relationship, the resolution of disputes, legal punishments, sexual mores, protests against those in authority, etc. But while the whole led to more freedom and equality, these characteristics added to a basically decentralised political and military structure and contributed to this society becoming more prone to external attack.

During the centuries, particularly between the twelfth and seventeenth, there is no dearth of such external onslaughts. The onslaughts to an extent are absorbed and accommodated by Indian society. Over a time, however, they contribute not only to further political and military weakness, but also to damaging the various integrating factors which had provided the necessary intellectual and spiritual links between different regions and specialist as well as ethnic groups. Over all, however, though considerably weaker and perhaps also psychologically at a low ebb, the major arrangements and expressions continued to serve the physical, social and spiritual needs of the Indian people satisfactorily.

At the time of the European onslaught, the indigenous tendencies in India seem to have been in a state of slow resurgence. The resurgence, while it restored a measure of confidence, weakened at the same time the political and military structure. With the beginning of European dominance in India, the resurgence got transformed into depression and unimaginable disorganisation. Foreign aggression and dominance was not wholly unknown in India before the resort to it by Europe in the mid-eighteenth century. But the Europeans of this period belonged to a wholly alien world in relation to India. They were not only armed with the concepts and hierarchical institutions of a long feudal European past, but had also been preparing for the occasion for two to three centuries. The subsequent application of their concepts and values completed the destruction of Indian science and society which had been started by the political and military defeat of India at their hands.

What has developed in India in the field of science and technology during the past century, and at a greater pace since 1947, is mainly a transplanting of some of that which has developed during this period in the European world. Such transplanting has happened not only at the level of theories, but even more so as regards the organisation of technology and the direction of research. It is largely due to such transplanting and its unthinking acceptance that, though many individual Indian scientists and technologists are as creative and inventive as their colleagues in the European world, the impact of this science and technology on the larger society of India is in fact minimal. It is no exaggeration, perhaps, to add that the field of science and technology in India, as far as it concerns its ordinary life, is only a little less barren than India's state system and its politics.

Borrowing of ideas and practices in themselves need not be obstructive to India's development or creativity. During the centuries, India must have borrowed many ideas and practices from other lands—in the same manner in which Europe received much in the field of science and technology from the Arabs etc., or the Arabs and others did from India. To the extent that such borrowings lead to further innovation and creativity, they are to be greatly welcomed. Unfortunately, so far, the past century's unthinking transplanting of European sciences and technologies in India has resulted mainly in retarding and blunting of indigenous innovation and creativity.

The problem for India today, as perhaps for many other lands which are still recovering from the effects of eighteenth and nineteenth century European dominance, is how to achieve and increase such innovation and creativity. Such innovation and creativity can arise, however, only from a widespread indigenous base. Such a base has yet to be identified (and the superstructure accordingly modified and linked with it) in countries like India. For that, knowledge and comprehension of how they functioned before the beginning of this dominance seem to be essential. Even for the purposeful adaptations from European (or for that matter Japanese, Chinese or any other) science and technology and their integration with indigenous concepts, knowledge and forms, it is necessary that these countries achieve such self-knowledge and understanding at the earliest possible.

Notes

1. Lady Mary Wortley Montagu: *Memoirs.*

2. See mid-eighteenth century *Tracts on Inoculation* in the British Museum

3. *Encyclopaedia Britannica*: 1910-11 edition: Article on *Sowing.*

4. See Chapter II, p.89.

5. *Edinburgh Review*, Vol.22, Jan. 1814, pp.474-75

6. See Chapter II, p.51.

7. *Encyclopaedia Britannica*: 1823 edition: Article on *Hindoos*, Vol.X, p.477.

8. *Edinburgh Review*, Vol.X (1810), p.387; also see 'An Essay on the Sacred Isles in the West' by Francis Wilford in the *Asiatic Researches*, Vol.8 (1808), pp.246-7.

9. *Philosophical Transactions*, Vol.83 (1793), Article by John Lloyd Williams, pp.45-9.

10. *Asiatic Researches*, Vol.5 (1798), Article by W. Hunter, pp.177-211.

11. *Ibid.*

12. G.R. Kaye (honorary correspondent of Archaeological Department of India), Calcutta, Government Printing Press, 1920.

13. *Ibid.*

14. J.P. Tavernier: *Travels in India*, Calcutta, 1905, p.425.

15. Bengal: Past and Present, Vol.6, pp.279-80

16. *Encyclopaedia Britannica*: 8th Edition (1850), Article on *Algebra*.

17. *Encyclopaedia Britannica*: 11th Edition (1910-11), Article on *Binomial Theorem.*

18. *Asiatic Researches*, Vol.13 (1820), Article by R. Tytler, M.D., pp.456-67.

19. *Ibid.*

20. See Chapter VI, p.146.

21. India Office Records (IOR): *MSS Eur F/95/I*, 'Some Remarks on the Soil and Cultivation on the Western Side of the River Hooghly', ff.81r.

22. See Chapter XVII, pp.255.

23. *Ibid*, pp.256.

24. Report on the Progress of Vaccine Inoculation in Bengal, Calcutta, 1804.

25. *Ibid*, p.27-8.

26. *Ibid*, p.94.

27. See *Tracts on Inoculation*, referred to above (reference 2) for the theological reasons advanced against inoculation in Britain in the eighteenth century.

28. IOR: Practice of Inoculation in the Benares Division: From Officiating Superintendent General of Vaccination to Government N.W.P., dated 6th June 1870, p.77.

29. Ibid, Report by R.M. Milne, Officiating Superintendent of Vaccination, dated 1st April 1870, p.72.

30. See Chapter VIII, p.161.

31. See Chapter XII, p.191.

32. Rameshchandra Majumdar, H.C. Raychaudhuri, Kalikinkar Datta: *An Advanced History of India*, 3rd edition (1967), p.564.

33. *Philosophical Transactions*, Vol.65 (1775), Article by Joseph Black, M.D., pp.124-8.

34. See Chapter XVII, p.258.

35. *Philosophical Transactions*, Vol.85 (1795), 'Experiments and Observations to investigate the Nature of a Kind of Steel, manufactured at Bombay, and there called Wootz: with Remarks on the Properties and Composition of the different States of Iron', by. George Pearson, M.D., F.R.S., pp.322-346. See also D. Mushet: *Experiments on Wootz or Indian Steel* (British Museum 727. k.3), pp.650-62.

36. Stodart to B. Heyne: Quoted in Heyne's *Tracts on India*, 1814, p.363. According to Robert Hadfield, Stodart was probably 'the same Mr Stodart who many years later assisted Faraday in preparing and investigating a large number of steel alloys' (*Journal of Iron and Steel Institute*, Vol.85). According to Heyne, Stodart was 'an eminent instrument-maker', and according to Pearson, whom he assisted in conducting the experiments on Wootz in 1794-5, Stodart was an 'ingenious artist'.

37. *Ibid*, p.364.

38. *Philosophical Transactions*, Vol.85, Pearson's Experiments, p.345.

39. J.M. Heath: 'On Indian Iron and Steel' quoted in D. Mushet, *Ibid*, p.671.

40. *Ibid.*

41. *lbid.*

42. *lbid*, p.669, 671.

43. See, for instance, an English version of D. Havart's *Rise and Decline of Coromandel* (from the original Dutch published in 1692 or 1693, from Utrecht), pp.291-94, 401-3, in *Mackenzie MSS (Private)*, Vol.88, in IOR.

44. M.G. Ranade: *Essays on Indian Economics*, 3rd edition, 1916, p.155.

45. See Chapter XV, p.215.

46. National Archives of India (NAI): HOME, Misc. Records, Vol.437, *Report of the Mineralogical Survey of the Himalaya Mountains, 1826*, p.627.

47. IOR: Public Despatch to Bengal, July 29, 1814, para 9.

48. Francois Baltazar Solvyns: *Les Hindous*, 4 Vols, 1802-12.

49. *Philosophical Transactions*, Vol.28, from Fr Papin, Bengale, December 18, 1709, p.226.

50. Kurt Pollak: *The Healers: The Doctor, Then and Now*, English Edition 1968, pp.37-8.

51. Majumdar and others: *An Advanced History of India*, p.561.

52. *Encyclopaedia Britannica*: 8th edition, Article on Algebra.

53. NAI: India Public Proceedings, March 7, 1835, Minutes on Public Instruction.

54. See, amongst others, *Speeches of William Wilberforce on India in the British House of Commons in 1813*, also James Mill's *History of British India*, 1817, particularly Vol.I.

55. Voltaire: *Collected Works*, Vol.38 (BM 1341 d 8), pp.83-4, 87.

56. See S.C. Almast 'History and Evolution of Indian Method of Rhinoplasty', in Proceedings of Fourth International Congress on Plastic Surgery, Rome, 1967, Excerpta Medica Foundation, Amsterdam, 1969.

PART I

SCIENCE

I

BRAMIN'S OBSERVATORY AT BENARES

Benares (By Sir Robert Barker, F.R.S. (Published 1777).) in the East Indies, one of the principal seminaries of the Bramins or priests of the original Gentoos of Hindostan, continues still to be the place of resort of that sect of people; and there are many public charities, hospitals, and pagodas, where some thousands of them now reside. Having frequently heard that the ancient Bramins had a knowledge of astronomy, and being confirmed in this by their information of an approaching eclipse both of the Sun and Moon, I made inquiry, when at that place in the year 1772, among the principal Bramins, to endeavour to get some information relative to the manner in which they were acquainted of an approaching eclipse. The most intelligent that I could meet with, however, gave me but little satisfaction. I was told, that these matters were confined to a few, who were in possession of certain books and records; some containing the mysteries of their religion, and others the tables of astronomical observations, written in the Sanskrit language, which few understood but themselves: that they would take me to a place which had been constructed for the purpose of making such observations as I was inquiring after, and from whence they supposed the learned Bramins made theirs. I was then conducted to an ancient building of stone, the lower part of which, in its present situation, was converted into a stable for horses, and a receptacle for lumber; but, by the number of courtyards and apartments, it appeared that it must once have been an edifice for the use of some public body of people. We entered this building, and went up a staircase to the top of a part of it, near to the river Ganges, that led to a large terrace, where, to my surprise and satisfaction, I saw a number of instruments yet remaining, in the greatest preservation, stupendously large, immoveable from the spot, and built of stone, some of them being upwards of twenty feet in height; and, although they are said to have been erected two hundred years ago, the graduations and divisions on the several arcs appeared as well cut, and as accurately divided, as if they had been the performance of a modern artist. The execution in the construction of these instruments exhibited a mathematical exactness in the fixing, bearing, and fitting of the several parts, in the necessary and sufficient supports to the very large stones that composed them, and in the joining and fastening each into the other by means of lead and iron.

The situation of the two large quadrants of the instrument marked *A* in *Figure I,* whose radius is nine feet two inches, by their being at right angles with a gnomon at twenty-five degrees elevation, are thrown into such an oblique situation as to render them the most difficult, not only to construct of such a magnitude, but to secure in their position for so long a period, and affords a striking instance of the ability of the architect in their construction; for, by the shadow of the gnomon thrown on the quadrants, they do not appear to have altered in the least from their original position; and so true is the line of the gnomon, that, by applying the eye to a small iron ring of an inch diameter at one end, the sight is carried through three others of the same dimension to the extremity at the other end, distant thirty-eight feet eight inches, without obstruction; such is the firmness and art with which this instrument has been executed. This performance is the more wonderful and extraordinary when compared with the works of the artificers of Hindostan at this day, who are not under the immediate direction of an European mechanic; but arts appear to have declined equally with science in the East.

Lieutenant-colonel Archibald Campbell, at that time chief engineer in the East India Company’s service at Bengal, a gentleman whose abilities do honour to his profession, made a perspective drawing of the whole of the apparatus that could be brought within his eye at one view; but I lament he could not represent some very large quadrants, whose radii were about twenty feet, they being on the side from whence he took his drawing. Their description however is, that they are exact quarters of circles of different radii, the largest of which I judged to be twenty feet, constructed very exactly on the sides of stone walls built perpendicular, and situated, I suppose, in the meridian of the place: a brass pin is fixed at the center or angle of the quadrant, from whence, the Bramin informed me, they stretched a wire to the circumference when an observation was to be made; from which it occurred to me, the observer must have moved his eye up or down the circumference, by means of a ladder or some such contrivance, to raise and lower himself, until he had discovered the altitude of any of the heavenly bodies in their passage over the meridian, so expressed on the arcs of these quadrants: these arcs were very exactly divided into nine large sections; each of which again into ten, making ninety lesser divisions or degrees: and those also into twenty, expressing three minutes each, of about two-tenths of an inch as under; so that it is probable, they had some method of dividing even these into more minute divisions at the time of observation.

My time would only permit me to take down the particular dimensions of the most capital instrument, or the greater equinoctial Sun-dial, represented by *Figure I, A,* which appears to be an instrument to express solar time by the shadow of a gnomon upon two quadrants, one situated to the east, and the other to the west of it; and indeed the chief part of their instruments at this place appear to be constructed for the same purpose, except the quadrants, and a brass instrument that will be described hereafter.

Figure I, B, is another instrument for the purpose of determining the exact hour of the day by the shadow of a gnomon, which stands perpendicular to and in the center of a flat circular stone, supported in an oblique situation by means of four upright stones and a cross-piece; so that the shadow of the gnomon, which is a perpendicular iron rod, is thrown upon the divisions of the circle described on the face of the flat, circular stone.

Figure I, C, is a brass circle, about two feet in diameter, moving vertically upon two pivots between two stone pillars, having an index or hand turning round horizontally on the center of this circle, which is divided into 360 parts; but there are no counter-divisions on the index to sub-divide those on the circle. This instrument appears to be made for taking the angle of a star at setting or rising, or for taking the azimuth or amplitude of the Sun at rising or setting.

The use of the instrument, *Figure I, D*, I was at a loss to account for. It consists of two circular walls; the outer of which is about forty feet diameter, and eight feet high; the wall within about half that height, and appears intended for a place to stand on to observe the divisions on the upper circle of the outer wall, rather than for any other purpose; and yet both circles are divided into 360 degrees, each degree being sub-divided into twenty lesser divisions, the same as the quadrants. There is a

doorway to pass into the inner circle, and a pillar in the center, of the same height with the lower circle, having a hole in it, being the center of both circles, and seems to be a socket for an iron rod to be placed perpendicular into it. The divisions on these, as well as all the other instruments, will bear a nice examination with a pair of compass.

Figure I, E, is a smaller equinoctial Sun-dial, constructed upon the same principle as the large one *A*.

I cannot quit this subject without observing, that the Bramins, without the assistance of optical glasses, had nevertheless an advantage unexperienced by the observers of the more Northern climates. The serenity and clearness of the atmosphere in the night-time in the East Indies, except at the seasons of changing the monsoons or periodical winds, is difficult to express to those who have not seen it, because we have nothing in comparison to form our ideas upon: it is clear to perfection, a total quietude subsists, scarcely a cloud to be seen; and the light of the heavens, by the numerous appearance of the stars, affords a prospect both of wonder and contemplation.

This observatory at Benares is said to have been built by the order of the emperor Ackbar; for as this wise prince endeavoured to improve the arts, so he wished also to recover the sciences of Hindostan, and therefore directed that three such places should be erected; one at Delhi, another at Agra, and the third at Benares.

Some doubts have arisen with regard to the certainty of the ancient Bramins having a knowledge in astronomy, and whether the Persians might not have introduced it into Hindostan, when conquered by that people; but these doubts I think must vanish, when we know that the present Bramins pronounce, from the records and tables which have been handed down to them by their forefathers, the approach of the eclipses of the Sun and Moon, and regularly as they advance give timely information to the emperor and the princes in whose dominion they reside. There are yet some remains in evidence of their being at one time in possession of this science. The signs of the Zodiac, in some of their Choultrys on the coast of Coromandel, as remarked by John Call, Esq. F.R.S. in his letter to the Astronomer Royal, requires little other confirmation. Mr Call says, that as he was laying on his back, resting himself in the heat of the day, in a Choultry at Verdapetah in the Madura country, near Cape Commorin, he discovered the signs of the Zodiac on the ceiling of the Choultry: that he found one, equally complete, which was on the ceiling of a temple, in the middle of a tank before the pagoda Teppecolum near Mindurah; and that he had often met with several parts in detached pieces. (See *Philos. Trans.* 1772, p.353) These buildings and temples were the places of residence and worship of the original Bramins, and bear the marks of great antiquity, having perhaps been built before the Persian conquest. Besides, when we know that the manners and customs of the Gentoo religion are such as to preclude them from admitting the smallest innovation in their institutions; when we also know that their fashion in dress, and the mode of their living, have not received the least variation from the earliest account we have of them; it cannot be supposed they would engrave the symbolical figures of the Persian astronomy in their sacred temples; the signs of the Zodiac must therefore have originated with them, if we credit their tradition of the purity of their religion and customs.

Mr Fraser in his History of the Mogul Emperors, speaking of time says, 'the Lunar year they reckon 354 days, 22 gurris, 1 pull; the Solar year they reckon 365 days, 15 gurris, 30 pulls, 22½ peels; 60 peels making 1 pull, 60 pulls 1 gurri, and 60 gurris 1 day. This is according to the Bramins or Indian priests, and what the Moguls and other Mahommedans in India chiefly go by.'

Thus far Mr Fraser; and it serves to strengthen the argument for supposing that the Bramins had a knowledge of astronomy before the introduction of Mahommedanism into Hindostan.

Dimensions of the Larger Equinoctial Sun-dial
(Figures II and III)

	Feet	In.
Length of the gnomon at the base *b b*,	34	8
Oblique length of the gnomon *c c*,	38	8
Radius of the quadrants *a a*,	9	2
Height of the gnomon at *d*,	22	3
Breadth of the quadrants *f f*,	5	10
Thickness *g g*,	1	0
Breadth of the gnomon *b b*,	4	6
Whole extent of the instrument *i i*,	37	4

Latitude of the place taken by double altitude 25°10'.

Supplementary Note (**By Colonel T.D. Pearse (who accompanied Sir Robert Barker) to General Desaguliers.)***

The principal curiosity here is the observatory, built by Mawnsing, the son of Jysing, about 200 years ago; there is an exceedingly good mural arch cut upon a fine plaister of chunam, so fine and smooth, that it has the appearance of marble; and though it is certainly very old, it still is perfect, but the index is wanting; that is a loss which could very easily be supplied by a person who has a taste for these studies; for the centres are left in the wall.

There are two ring dials; the large one is curious: the radius of the stone arch is 9 feet 8 inches; the gnomon is 4 feet 6 inches thick, and its slant side about 40 feet long: there are steps in the gnomon by which you ascend to the top of it. By the measure of the two gnomons, I find they stand in latitude 25° 20′ N. There are likewise two small inclined dials, in which the gnomon is perpendicular to the plane of the stone on which the degrees are marked. Lastly, there is an instrument which I do not understand, the following is a description of it:

A, b are circular walls; *a* is 24 inches thick, and near 16 feet radius; *b* is concentric with *a*, 18 inches thick, and between 12 and 13 feet radius. *C* is a cylinder of stone, its center is the center of the walls. *B* and *C* are of equal height, viz, 4 feet 2 inches; the outward wall is 8 feet and 4 inches. The tops of these walls are horizontal, and are very nicely divided into degrees, and subdivided into arches of 6′. At the cardinal points on the top of the wall *a*; there are two iron pins, from which I conjecture there has been an instrument to fix upon the wall, though I do not know for what purpose or of what kind.

Lastly the second, for I had forgotten an instrument for taking the declension of the sun, etc., which consists of a circle of iron, covered with brass, an axis of the same materials, and an index with sights. This axis, which is a diameter of a circle, and consequently in the plane of it, moves on pivots fixed in the walls, which support it and is parallel to the axis of the earth. The divisions are very much inferior to those on the stone.

II

REMARKS ON THE ASTRONOMY OF THE BRAHMINS

(By John Playfair, A.M., F.R.S., Edin. (Published 1790).)

Since the time when astronomy emerged from the obscurity of ancient fable, nothing is better known than its progress through the different nations of the earth. With the era of Nabonassar, regular observations began to be made in Chaldea; the earliest which have merited the attention of succeeding ages. The curiosity of the Greeks was, soon after, directed to the same object; and that ingenious people was the first that endeavoured to explain, or connect by theory, the various phenomena of the heavens. This work was supposed to be so fully accomplished in the Syntaxes of Ptolemy that his system, without opposition or improvement, continued, for more than five hundred years, to direct the astronomers of Egypt, Italy and Greece. After the sciences were banished from Alexandria, his writings made their way into the East, where, under the Caliphs of Bagdat, astronomy was cultivated with diligence and success. The Persian princes followed the example of those of Bagdat, borrowing besides, from Trebisond, whatever mathematical knowledge was still preserved among the ruins of the Grecian empire. The conquests of Gengis, and afterwards of Timour, though they retarded, did not stop the progress of astronomy in the East. The grandsons of these two conquerors were equally renowned for their love of science: Hulagu restored astronomy in Persia, and Ulugh-Beigh, by an effort still more singular, established it in Tartary. In the meantime, having passed with the Arabs into Spain, it likewise found, in Alphonso of Castile, both a disciple and a patron. It was carried, soon after, into the north of Europe, where, after exercising the genius of Copernicus, of Kepler, and of Newton, it has become the most perfect of all the sciences.

2. In the progress which astronomy has thus made, through almost all the nations, from the Indus to the Atlantic, there is scarce a step which cannot be accurately traced; and it

is never difficult to determine what each age, or nation received from another, or what it added to the general stock of astronomical knowledge. The various systems, that have prevailed in all these countries, are visibly connected with one another; they are all derived from one original, and would incline us to believe, that the manner in which men begin to observe the heavens, and to reason about them, is an experiment on the human race, which has been made but once.

It is, therefore, matter of extreme curiosity to find, beyond the Indus, a system of astronomical knowledge that appears to make no part of the great body of science, which has traversed, and enlightened the other countries of the earth; a system that is in the hands of men, who follow its rules without understanding its principles, and who can give no account of its origin, except that it lays claim to an antiquity far beyond the period, to which, with us, the history of the heroic ages is supposed to extend.

3. We owe our first knowledge of this astronomy to M. La Loubere, who, returning, in 1687, from an embassy to Siam, brought with him an extract from a Siamese manuscript, which contained tables, and rules, for calculating the places of the sun and moon.[1] The manner in which these rules were laid down, rendered the principles, on which they were founded, extremely obscure; and it required a commentator, as conversant with astronomical calculation as the celebrated Cassini, to explain the meaning of this curious fragment. After that period, two other sets of astronomical tables were sent to Paris, by the missionaries in Hindostan; but they remained unnoticed, till the return of M. Le Gentil from India, where he had been to observe the transit of Venus in 1769. This academician employed himself, during the long stay, which his zeal for science induced him to make in that country, in acquiring a knowledge of the Indian astronomy. The Brahmins thought they saw, in the business of an astronomer, the marks of a *cast*, that had some affinity to their own, and began to converse with M. Le Gentil, more familiarly than with other strangers. A learned Brahmin of Tirvalore, having made a visit to the French astronomer, instructed him in the methods, which he used for calculating eclipses of the sun and moon, and communicated to him the tables and rules, that are published in the Memoirs of the Academy of Sciences, for 1772. Since that time, the ingenious and eloquent author of the

History of Astronomy, has dedicated an entire volume to the explanation, and comparison of these different tables, where he has deduced, from them, many interesting conclusions.[2] The subject indeed merited his attention; for the Indian astronomy has all the precision necessary for resolving the great questions, with respect to its own origin and antiquity, and is by no means among the number of those imperfect fragments of ancient knowledge, which can lead no further than conjecture, and which an astronomer would gladly resign to the learned researches of the antiquary, or the mythologist.

4. It is from these sources, and chiefly from the elaborate investigations of the last mentioned work, that I have selected the materials of the paper, which I have now the honour to lay before this Society; and it is perhaps necessary that I should make some apology for presenting here, what can have so little claim to originality. The fact is, that notwithstanding the most profound respect, for the learning and abilities of the author of the *Astronomie Indienne*, I entered on the study of that work, not without a portion of the scepticism, which whatever is new and extraordinary in science ought always to excite, and set about verifying the calculations, and examining the reasonings in it, with the most scrupulous attention. The result was, an entire conviction of the accuracy of the one, and of the solidity of the other; and I then fancied, that, in an argument of such variety, I might perhaps do a service to others, by presenting to them, that particular view of it, which had appeared to me the most striking. Such, therefore, is the object of these remarks; they are directed to three different points: The first is to give a short account of the Indian astronomy, so far as it is known to us, from the four sets of tables above mentioned; the second, to state the principal arguments, that can be deduced from these tables, with respect to their antiquity; and the third, to form some estimate of the geometrical skill with which this astronomical system is constructed. In the first, I have followed M. Bailly closely; in the second, though I have sometimes taken a different road, I have always come to the same conclusion; having aimed at nothing so much, as to reduce the reasoning into a narrow compass, and to avoid every argument that is not purely astronomical, and independent of all hypothesis; in the third, I have treated of a question which did not fall within the plan of M. Bailly's work, but have only entered on it at present, leaving to some future opportunity, the other discussions to which it leads.

5. The astronomy of India, as you already perceive, is confined to one branch of the science. It gives no theory, nor even any description of the celestial phenomena, but satisfies itself with the calculation of certain changes in the heavens, particularly of the eclipses of the sun and moon, and with the rules and tables by which these calculations must be performed. The Brahmin, seating himself on the ground, and arranging his shells before him, repeats the enigmatical verses that are to guide his calculation, and from his little tablets of palm leaves, takes out the numbers that are to be employed in it. He obtains his result with wonderful certainty and expedition; but having little knowledge of the principles on which his rules are founded, and no anxiety to be better informed, he is perfectly satisfied, if, as it usually happens, the commencement and duration of the eclipse answer, within a few minutes, to his prediction. Beyond this his astronomical enquiries never extend; and his observations, when he makes any, go no farther than to determine the meridian line, or the length of the day, at the place where he observes.

The objects, therefore, which this astronomy presents to us, are principally three. 1. Tables and rules for calculating the places of the sun and moon; 2. Tables and rules for calculating the places of the planets; 3. Rules by which the phases of eclipses are determined. Though it is chiefly to the first of these that our attention at present is to be directed, the two last will also furnish us with some useful observations.

6. The Brahmins, like all other astronomers, have distinguished from the rest of the heavens, that portion of them, through which the sun, moon and planets continually circulate. They divide this space, which we call the Zodiac, into twenty-seven equal parts, each marked by a group of stars, or a constellation.[3] This division of the Zodiac is extremely natural in the infancy of astronomical observation; because the moon completes her circle among the fixed stars, nearly in twenty-seven days, and so makes an actual division of that circle into twenty-seven equal parts. The moon too, it must be remembered, was, at that time, the only instrument, if we may say so, by which the positions of the stars on each side of her path could be ascertained; and when her own irregularities were unknown, she was, by the rapidity of her motion eastward, well adapted for this purpose. It is also to the phases of the moon, that we are to ascribe the

common division of time into weeks, or portions of seven days, which seems to have prevailed almost over the whole earth.[4] The days of the week are dedicated by the Brahmins, as by us, to the seven planets, and what is truly singular, they are arranged precisely in the same order.

7. With the constellations, that distinguish the twenty-seven equal spaces, into which their Zodiac is divided, the astronomers of India, have connected none of those figures of animals, which are among us, of so ancient, and yet so arbitrary an origin. M. Le Gentil has given us their names, and configurations.[5] They are formed, for the most part, of small groups of stars, such as the Pleiades or the Hyades, those belonging to the same constellation being all connected by straight lines. The first of them or that which is placed at the beginning of their Zodiac, consists of six stars, extending from the head of Aries to the foot of Andromeda, in our Zodiac, and occupying a space of about ten degrees in longitude. These constellations are far from including all the stars in the Zodiac. M. Le Gentil remarks, that those stars seem to have been selected, which are best adapted for marking out, by lines drawn between them, the places of the moon in her progress through the heavens.

At the same time that the stars in the Zodiac are thus arranged into twenty-seven constellations, the ecliptic is divided, as with us, into twelve signs of thirty degrees each. This division is purely ideal, and is intended merely for the purpose of calculation. The names and emblems by which these signs are expressed, are nearly the same as with us;[6] and there is nothing in the nature of things to have determined this coincidence, it must, like the arrangement of the days of the week, be the result of some ancient and unknown communication.

8. That motion by which the fixed stars all appear to move eastward, and continually to increase their distance from the place, that the sun occupies at the vernal equinox, is known to the Brahmins, and enters into the composition of all their tables.[7] They compute this motion to be at the rate of 54″ a year; so that their *annus magnus*, or the time in which the fixed stars complete an entire revolution, is 24,000 years. This motion is too

uick by somewhat less than 4″ a year; an error that will not be thought great, when it is considered, that Ptolemy committed one of 14″, in determining the same quantity.

Another circumstance, which is common to all the tables, and, at the same time, peculiar to the Indian astronomy, is, that they express the longitude of the sun and moon, by their distance from the beginning of the moveable Zodiac, and not, as is usual with us, by their distance from the point of the vernal equinox. The longitude is reckoned in signs of 30°, as already mentioned, and each degree is subdivided into 60′, etc. In the division of time, their arithmetic is purely sexagesimal: They divide the day into 60 hours, the hour into 60 minutes, etc.; so that their hour is 24 of our minutes, their minute 24 of our seconds, and so on.

9. These remarks refer equally to all the tables. We are now to take notice of what is peculiar to each, beginning with those of Siam.

In order to calculate for a given time, the place of any of the celestial bodies, three things are required. The first is, the position of the body in some past instant of time, ascertained by observation; and this instant, from which every calculation must set out, is usually called the *epoch* of the tables. The second requisite is, the mean rate of the planet's motion, by which is computed the arch in the heavens, that it must have described, in the interval between the epoch and the instant for which the calculation is made. By the addition of this, to the place at the epoch, we find the mean place of the planet, or the point it would have occupied in the heavens, had its motion been subject to no irregularity. The third is, the correction, on account of such irregularity, which must be added to the mean place, or subtracted from it, as circumstances require, in order to have the true place. The correction thus made is, in the language of astronomy, called an equation; and, when it arises from the eccentricity of a planet's orbit, it is called the equation of the centre.

10. The epoch of the tables of Siam does not go back to any very remote period. M. Cassini, by an ingenious analysis of their rules, finds that it corresponds to the 21st of March, in the year 638 of our era, at 3 in the morning, on the meridian of Siam.[8] This was the instant at which the astronomical year began, and at which both the sun and moon entered the moveable Zodiac.

Indeed, it is to be observed, that, in all the tables, the astronomical year begins when the sun enters the moveable Zodiac, so that the beginning of this year is continually advancing with respect to the seasons, and makes the complete round of them in 24,000 years.

From the epoch above mentioned, the mean place of the sun for any other time is deduced, on the supposition that in 800 years, there are contained 292,207 days.[9] This supposition involves in it the length of the sydereal year, or the time that the sun takes to return to the beginning of the moveable Zodiac, and makes it consist of 365^d, 6^h, 12′, 36″.[10] From this, in order to find the tropical year, or that which regulates the seasons, we must take away 21′, 55″, as the time which the sun takes to move over the 54″, that the stars are supposed to have advanced in the year; there will remain 365^d, 5^h, 50′, 41″, which is the length of the tropical year that is involved, not only in the tables of Siam, but likewise, very nearly, in all the rest.[11] This determination of the length of the year is but 1′, 53″, greater than that of De La Caille, which is a degree of accuracy beyond what is to be found in the more ancient tables of our astronomy.

11. The next thing with which these tables present us, is a correction of the sun's mean place, which corresponds to what we call the equation of his centre, or the inequality arising from the eccentricity of his orbit, in consequence of which, he is alternately retarded and accelerated, his true place being, for one half of the year, left behind the mean, and, for the other, advanced before it. The point where the sun is placed, when his motion is slowest, we call his apogee, because his distance from the earth is then greatest; but the Indian astronomy, which is silent with respect to theory; treats this point as nothing more than what it appears to be, a point, viz. in the heavens, where the sun's motion is the slowest possible, and about 90° distant from that, where his greatest inequality takes place. This greatest inequality is here made to be 2°, 12′,[12] about 16′ greater than it is determined, by the modern astronomy of Europe. This difference is very considerable; but we shall find that it is not to

be ascribed wholly to error, and that there was a time when the inequality in question was nearly of the magnitude here assigned to it. In the other points of the sun's path, this inequality is diminished, in proportion to the sine of the mean distance from the apogee, that is, nearly as in our own tables. The apogee is supposed to be 80° advanced beyond the beginning of the Zodiac, and to retain always the same position among the fixed stars, or to move forward at the same rate with them.[13] Though this supposition is not accurate, as the apogee gains upon the stars about 10″ annually, it is much nearer the truth than the system of Ptolemy, where the sun's apogee is supposed absolutely at rest, so as continually to fall back among the fixed stars, by the whole quantity of the precession of the equinoxes.[14]

12. In these tables, the motions of the moon are deduced, by certain intercalations, from a period of nineteen years, in which she makes nearly 235 revolutions; and it is curious to find at Siam, the knowledge of that cycle, of which the invention was thought to do so much honour to the Athenian astronomer Meton, and which makes so great a figure in our modern kalendars.[15] The moon's apogee is supposed to have been in the beginning of the moveable Zodiac, 621 days after the epoch of the 21st of March 638, and to make an entire revolution in the heavens in the space of 3232 days.[16] The first of these suppositions agrees with Mayer's tables to less than a degree, and the second differs from them only by 11^h, 14′, 31″-; and if it be considered that the apogee is an ideal point in the heavens, which even the eyes of an astronomer cannot directly perceive, to have discovered its true motion, so nearly, argues no small correctness of observation.

13. From the place of the apogee, thus found, the inequalities of the moon's motion, which are to reduce her mean to her true place, are next to be determined. Now, at the oppositions and conjunctions, the two greatest of the moon's inequalities, the

equation of the centre and the evection, both depend on the distance from the apogee, and therefore appear but as one inequality. They also, partly, destroy one another; so that the moon is retarded or accelerated, only by their difference, which, when greatest, is according to Mayer's tables, 4°, 57′, 42″. The Siamese rules, which calculate only for oppositions and conjunctions, give, accordingly, but one inequality to the moon, and make it, when greatest, 4°, 56′, not 2′ less than the preceding. This greatest equation is applied, when the moon's mean distance from the apogee is 90°; in other situations, the equation is less, in proportion as the sine of that distance diminishes.[17]

14. The Siamese MS breaks off here, and does not inform us how the astronomers of that country proceed, in the remaining parts of their calculation, which they seem to have undertaken, merely for some purpose in astrology. M. Cassini, to whom we are indebted for the explanation of these tables, observes, that they are not originally constructed for the meridian of Siam, because the rules direct to take away 3′ for the sun, and 40′ for the moon, (being the motion of each for 1^h 13′), from their longitudes calculated as above.[18] The meridian of the tables is therefore 1^h, 13′ or 18°, 15′ west of Siam; and it is remarkable, that this brings us very near to the meridian of Benares, the ancient seat of Indian learning.[19] The same agrees nearly with what the Hindoos call their first meridian, which passes through Ceylon and the banks of Ramanancor. We are, therefore, authorised, or rather, we are necessarily determined to conclude, that the tables of Siam came originally from Hindostan.

15. Another set of astronomical tables, now in the possession of the Academy of Sciences, was sent to the late M. De L'Isle from Chrisnabouram, a town in the Caranatic, by Fr Du Champ, about the year 1750. Though these tables have an obvious affinity to what has already been described, they form a much more regular and extensive system of astronomical knowledge. They are fifteen in number; and include, beside the mean motions of the sun, moon and planets, the equations to the centre of the sun and moon, and two corrections for each of the planets, the one of which corresponds to its apparent, and the other to its real inequality. They are accompanied also with precepts,

and examples, which Fr Du Champ received from the Brahmins of Chrisnabouram, and which he has translated into French.[20]

The epoch of these tables is less ancient than that of the former, and answers to the 10th of March at sunrise, in the year 1491 of our era, when the sun was just entering the moveable Zodiac, and was in conjunction with the moon; two circumstances, by which almost all the Indian eras are distinguished. The places, which they assign, at that time, to the sun and moon, agree very well with the calculations made from the tables of Mayer, and De La Caille. In their mean motions, they indeed differ somewhat from them; but as they do so equally for the sun and moon, they produce no error, in determining the relative position of these bodies, nor, of consequence, in calculating the phenomena of eclipses. The sun's apogee is here supposed to have a motion swifter than that of the fixed stars, by about 1″ in nine years, which, though it falls greatly short of the truth, does credit to this astronomy, and is a strong mark of originality. The equation of the sun's centre is somewhat less here than in the tables of Siam; it is 2°, 10′, 30″; the equation of the moon's centre is 5°, 2′, 47″; her path, where it intersects that of the sun, is supposed to make an angle with it of 4°, 30′, and the motions, both of the apogee and node, are determined very near to the truth.

16. Another set of tables, sent from India by Fr Patouillet, were received by M. De L'Isle, about the same time with those of Chrisnabouram. They have not the name of any particular place affixed to them; but, as they contain a rule for determining the length of the day, which answers to the latitude of 16°, 16′, M. Bailly thinks it probable that they come from Narsapour.[21]

The precepts and examples, which accompany these tables, though without any immediate reference to them, are confined to the calculation of the eclipses of the sun and moon; but the tables themselves extend to the motion of the planets, and very much resemble those of Chrisnabouram, except that they are given with less detail, and in a form much more enigmatical.[22]

The epoch of the precepts, which M. Bailly has evolved with great ingenuity, goes back no farther than the year 1569, at midnight, between the 17th and 18th of March. From this epoch, the places of the sun and moon are computed, as in the tables of Siam, with the addition of an equation, which is indeed extremely singular. It resembles that correction of the moon's motion, which was discovered by Tycho, and which is called the annual equation, because its quantity depends, not on the place of the moon, but on the place of the sun, in the ecliptic. It is every where proportional to the inequality of the sun's motion, and is nearly a tenth part of it. The tables of Narsapour make their annual equation only of the sun's: but this is not their only mistake; for they direct the equation to be added to the moon's longitude, when it ought to be subtracted from it, and vice versa. Now, it is difficult to conceive from whence the last mentioned error has arisen; for though it is not at all extraordinary, that the astronomers, who constructed these tables, should mistake the quantity of a small equation, yet it is impossible, that the same observations, which informed them of its existence, should not have determined, whether it was to be added or subtracted. It would seem, therefore, that something accidental must have occasioned this error; but however that be, an inequality in the lunar motions, that is found in no system with which the astronomers of India can have had any communication, is at least a proof of the originality of their tables.

17. The tables, and methods, of the Brahmins of Tirvalore, are, in many respects, more singular than any that have yet been, described.[23] The solar year is divided, according to them, into twelve unequal months, each of which is the time that the sun takes to move through one sign, or 30°, of the ecliptic. Thus,

Any, or June, when the sun is in the third sign, and his motion slowest, consists of 31^d, 36^h, 38′ and *Margagy*, or December, when he is in the ninth sign, and his motion quickest, consists only of 29^d, 20^h, 53.[24] The lengths of these months, expressed in natural days, are contained in a table, which, therefore, involves in it the place of the sun's apogee, and the equation of his centre. The former seems to be 77° from the beginning of the Zodiac, and the latter about 2°, 10′, nearly as in the preceding tables. In their calculations, they also employ an astronomical day, which is different from the natural, being the time that the sun takes to move over one degree of the ecliptic; and of which days there are just 360 in a year.[25]

18. These tables go far back into antiquity. Their epoch coincides with the famous era of the Calyougham, that is, with the beginning of the year 3102 before Christ. When the Brahmins of Tirvalore would calculate the place of the sun for a given time, they begin by reducing into days the interval between that time, and the commencement of the Calyougham, multiplying the years by 365^d, 6^h, 12′, 30″; and taking away 2^d, 3^h, 32′, 30″, the astronomical epoch having begun that much later than the civil.[26] They next find, by means of certain divisions, when the year current began, or how many days have elapsed since the beginning of it, and then, by the table of the duration of months, they reduce these days into astronomical months, days, etc., which is the same with the signs, degrees and minutes of the sun's longitude from the beginning of the Zodiac. The sun's longitude, therefore, is found.

19. Somewhat in the same manner, but by a rule still more artificial and ingenious, they deduce the place of the moon, at any given time, from her place at the beginning of the Calyougham.[27] This rule is so contrived, as to include at once the motions both of the moon and of her apogee, and depends on this principle, according to the very skilful interpretation of M. Bailly, that, 1,600,894 days after the above mentioned epoch, the moon was in her apogee, and 7^s, 2°, 0′, 7″, distant from the beginning of the Zodiac; that after 12,372 days, the moon was again in her apogee, with her longitude increased, 9^s, 27°, 48′,

10″; that in 3031 days more, the moon is again in her apogee, with 11^s, 7°, 31′, 1″ more of longitude; and, lastly, that, after 248 days, she is again in her apogee, with 27°, 44′, 6″, more of longitude. By means of the three former numbers, they find, how far, at any given time, the moon is advanced in this period of 248 days, and by a table, expressing how long the moon takes to pass through each degree of her orbit, during that period, they find how far she is then advanced in the Zodiac.[28] This rule is strongly marked with all the peculiar characters of the Indian astronomy. It is remarkable for its accuracy, and still more for its ingenuity and refinement; but is not reduced withal, to its ultimate simplicity.

20. The tables of Tirvalore, however, though they differ in form very much from those formerly described, agree with them perfectly in many of their elements. They suppose the same length of the year, the same mean motions, and the same inequalities of the sun and moon, and they are adapted nearly to the same meridian.[29] But a circumstance in which they seem to

differ materially from the rest is, the antiquity of the epoch from which they take their date, the year 3102 before the Christian era. We must, therefore, enquire, whether this epoch is real or fictitious, that is, whether it has been determined by actual observation, or has been calculated from the modern epochs of the other tables. For it may naturally be supposed, that the Brahmins, having made observations in later times, or having borrowed from the astronomical knowledge of other nations, have imagined to themselves a fictitious epoch, coinciding with the celebrated era of the Calyougham, to which, through vanity or superstition, they have referred the places of the heavenly bodies, and have only calculated what they pretend that their ancestors observed.

21. In doing this, however, the Brahmins must have furnished us with means, almost infallible, of detecting their imposture. It is only for astronomy, in its most perfect state, to go back to the distance of forty-six centuries, and to ascertain the situation of the heavenly bodies at so remote a period. The modern astronomy of Europe, with all the accuracy that it derives from the telescope and the pendulum, could not venture on so difficult a task, were it not assisted by the theory of gravitation, and had not the integral calculus, after a hundred years of almost continual improvement, been able, at last, to determine the disturbances in our system, which arise from the action of the planets on one another.

Unless the corrections for these disturbances be taken into account, any system of astronomical tables, however accurate at the time of its formation, and however diligently copied from the heavens, will be found less exact for every instant, either before or after that time, and will continually diverge more and more from the truth, both for future and past ages. Indeed, this will happen, not only from the neglect of these corrections, but also from the small errors unavoidably committed, in determining the mean motions, which must accumulate with the time, and produce an effect that becomes every day more sensible, as we retire, on either side, from the instant of observation. For both these reasons, it may be established as a maxim, that, if there be given a system of astronomical tables, founded on observations of an unknown date, that date may be found, by taking the time when the tables represent the celestial motions most exactly.

Here, therefore, we have a criterion, by which we are to judge of the pretensions of the Indian astronomy to so great antiquity. It is true, that, in applying it, we must suppose our modern astronomy, if not perfectly accurate, at least so exact as to represent the celestial motions, without any sensible error, even for a period more remote than the Calyougham; and this, considering the multitude of observations on which our astronomy is founded, the great antiquity of some of those observations, and the extreme accuracy of the rest, together with the assistance derived from the theory of physical causes, may surely be assumed as a very reasonable postulatum. We begin with the examination of the mean motions.

22. The Brahmins place the beginning of their moveable Zodiac, at the time of their epoch, 54° before the vernal equinox, or in the longitude of 10^{s}, 6°, according to our method of reckoning. Now, M. Le Gentil brought with him a delineation of the Indian Zodiac, from which the places of the stars in it may be ascertained with tolerable exactness.[30] In particular, it appears, that Aldebaran, or the first star of Taurus, is placed in the last degree of the fourth constellation, or 53°, 20′, distant from the beginning or the Zodiac. Aldebaran was therefore 40′ before the point of the vernal equinox, according to the Indian astronomy, in the year 3102 before Christ. But the same star, by the best modern observations, was, in the year 1750, in longitude, 2^{s}, 6°, 17′, 47″; and had it gone forward, according to the present rate of the precession of the equinoxes, 50″ annually, it must have been, at the era of the Calyougham, 1°, 32′, before the equinox. But this result is to be corrected, in consequence of the inequality in the precession, discovered by M. De La Grange,[31] by the addition of 1°, 45′, 22″, to the longitude of Aldebaran, which gives the longitude of that star 13′ from the vernal equinox, at the time of the Calyougham, agreeing, within 53′, with the determination of the Indian astronomy.[32]

This agreement is the more remarkable, that the Brahmins, by their own rules for computing the motion of the fixed stars, could not have assigned this place to Aldebaran for the beginning of the Calyougham, had they calculated it from a modern observation. For as they make the motion of the fixed stars too great by more than 3″ annually, if they had calculated backward from 1491, they would have placed the fixed stars less advanced by 4° or 5°, at their ancient epoch, than they have actually done. This argument carries with it a great deal of force; and even were it the only one we had to produce, it would render it, in a high degree, probable, that the Indian Zodiac was as old as the Calyougham.

23. Let us next compare the places of the sun and moon, for the beginning of the Calyougham, as deduced from the Indian and the modern astronomy. And, first, of the sun, though, for a reason that will immediately appear, it is not to be considered as leading to any thing conclusive. M. Bailly, from a comparison of the tables of Tirvalore with those of Chrisnabouram, has determined the epoch of the former to answer to midnight, between the 17th and 18th[33] of February of the year 3102 before Christ, at which time the sun was just entering the moveable Zodiac, and was therefore in longitude 10^s, 6°. M. Bailly also thinks it reasonable to suppose, that this was not the mean place of the sun, as the nature of astronomical tables require, but the true place, differing from the mean, by the equation to the sun's centre at that time.[34] This, it must be confessed, is the mark of greatest unskilfulness, that we meet with in the construction of these tables. Supposing it, however, to be the case, the mean place of the sun, at the time of the epoch, comes out 10^s, 3°, 38′, 13″. Now, the mean longitude of the sun, from De La Caille's tables, for the same time, is 10^s, 1°, 5′, 57″, supposing the precession of the equinoxes to have been uniformly at the rate it is now, that is, 50″ annually. But M. De La Grange has demonstrated, that the precession was less in former ages than in the present; and his formula gives 1°, 45′, 22″, to be added, on that account, to the sun's longitude already found, which makes it 10^s, 2°, 51′, 19″, not more than 47′ from the radical place in the tables of Tirvalore. This agreement is near enough to afford a strong proof of the reality of the ancient epoch, if it were not for the difficulty that remains about considering the sun's place as the true, rather than the mean; and, for that reason, I am unwilling that any stress should be laid upon this

argument. The place of the moon is not liable to the same objection.

24. The moon's mean place, for the beginning of the Calyougham, (that is, for midnight between the 17th and 18th of February 3102, B.C. at Benares), calculated from Mayer's tables, on the supposition that her motion has always been at the same rate as at the beginning of the present century, is 10^s, 0°, 51′, 16″.[35] But, according to the same astronomer, the moon is subject to a small, but uniform acceleration, such, that her angular motion, in any one age, is 9″ greater than in the preceding, which, in an interval of 4801 years, must have amounted to 5°, 45′, 44″. This must be added to the preceding, to give the real mean place of the moon, at the astronomical epoch of the Calyougham, which is therefore 10^s, 6°, 37′. Now, the same, by the tables of Tirvalore, is 10^s, 6°, 0′; the difference is less than two thirds of a degree, which, for so remote a period, and considering the acceleration of the moon's motion for which no allowance could be made in an Indian calculation, is a degree of accuracy that nothing but actual observation could have produced.

25. To confirm this conclusion, M. Bailly computes the place of the moon for the same epoch, by all the tables to which the Indian astronomers can be supposed to have ever had access.[36] He begins with the tables of Ptolemy; and if, by help of them, we go back from the era of Nabonassar, to the epoch of the Calyougham, taking into account the comparative length of the Egyptian and Indian years, together with the difference of meridians between Alexandria and Tirvalore, we shall find the longitude of the sun 10°, 21′, 15″ greater, and that of the moon 11°, 52′, 7″ greater than has just been found from the Indian tables.[37] At the same time that this shows, how difficult it is to go back, even for a lesser period than that of 3000 years, in an astronomical computation, it affords a proof, altogether demonstrative, that the Indian astronomy is not derived from that of Ptolemy.

The tables of Ulugh Beig are more accurate than those of the Egyptian astronomer. They were constructed in a country not far from India, and but a few years earlier than 1491, the epoch of the tables of Chrisnabouram. Their date is July 4, at noon, 1437, at Samarcand; and yet they do not agree with the Indian tables, even at the above mentioned epoch of 1491.[38] But, for the year 3102 before Christ, their difference from them, in the place of the sun, is 1°, 30′, and in that of the moon 6°; which, though much less than the former differences, are sufficient to show, that the tables of India are not borrowed from those of Tartary.

The Arabians employed in their tables the mean motions of Ptolemy; the Persians did the same, both in the more ancient tables of Chrysococca, and the later ones of Nassireddin.[39] It is therefore certain, that the astronomy of the Brahmins is neither derived from that of the Greeks, the Arabians, the Persians or the Tartars. This appeared so clear to Cassini, though he had only examined the tables of Siam, and knew nothing of many of the great points which distinguish the Indian astronomy from that of all other nations, that he gives it as his opinion, that these tables are neither derived from the Persian astronomy of Chrysococca, nor from the Greek astronomy of Ptolemy; the places they give at their epoch to the apogee of the sun, and or the moon, and their equation for the sun’s centre, being very different from both.[40]

26. But, to return to what respects the moon’s acceleration; it is plain, that tables, as ancient as those of Tirvalore pretend to be, ought to make the mean motion of that planet much slower than it is at present. They do accordingly suppose, in the rule for computing the place of the moon, already described, that her motion for 4383 years, 94 days, reckoned in the moveable Zodiac from the epoch of the Calyougham, is 7^s, 2°, 0’, 7″, or 9^s, 7°, 45′, 1″, when referred to the fixed point of the vernal equinox. Now, the mean motion for the same interval, taken from the tables of Mayer, is greater than this, by 2°, 42′, 4″,[41] which, though conformable, in general, to the notion of the moon’s motion having been accelerated, falls, it must be confessed, greatly short of the quantity which Mayer has assigned to that acceleration. This, however, is not true of all the tables; for the moon’s motion in 4383 years, 94 days, taken from those of Chrisnabouram, is 3°, 2′, 10″ less than in the tables of

Tirvalore;[42] from which it is reasonable to conclude, with M. Bailly, that the former are, in reality, more ancient than the latter, though they do not profess to be so: and hence, also, the tables of Chrisnabouram make the moon's motion less than Mayer's, for the above mentioned interval, by 5°, 44′, 14″, which therefore is, according to them, the quantity of the acceleration.

27. Now, it is worthy of remark, that if the same be computed on Mayer's principles, that is, if we calculate how much the angular motion of the moon for 4383 years, 94 days, dated from the beginning of the Calyougham, must have been less than if her velocity had been all that time uniform, and the same as in the present century, we shall find it to be 5°, 43′, 7″, an arch which is only 1′, 7″, less than the former. The tables of Chrisnabouram, therefore, agree with those of Mayer, when corrected by the acceleration within 1′, 7″, and that for a period of more than four thousand years. From this remarkable coincidence, we may conclude, with the highest probability, that at least one set of the observations, on which those tables are founded, is not less ancient than the Calyougham; and though the possibility of their being some ages later than that epoch, is not absolutely excluded, yet it may, by strict mathematical reasoning, be inferred, that they cannot have been later than 2000 years before the Christian era.[43]

28. This last is one of the few coincidences between the astronomy of India and of Europe, which their ingenious historian has left for others to observe. Indeed, since he wrote, every argument, founded on the moon's acceleration, has become more worthy of attention, and more conclusive. For that acceleration is no longer a mere empirical equation, introduced to reconcile the ancient observations with the modern, nor a fact that can only be accounted for by hypothetical causes, such as the resistance of the ether, or the time necessary for the transmission of

gravity; it is a phenomenon, which M. De La Place has,[44] with great ability, deduced from the principle of universal gravitation, and shown to be necessarily connected with the changes in the eccentricity of the earth's orbit, discovered by M. De La Grange; so that the acceleration of the moon is indirectly produced by the action of the planets, which alternately increasing and diminishing the said eccentricity, subjects the moon to different degrees of that force by which the sun disturbs the time of her revolution round the earth. It is therefore a periodical inequality, by which the moon's motion, in the course of ages, will be as much retarded as accelerated; but its changes are so slow, that her motion has been constantly accelerated, even for a longer period than that to which the observations of India extend.

A formula for computing the quantity of this inequality, has been given by M. De La Place, which, though only an approximation, being derived from theory, is more accurate than that which Mayer deduced entirely from observation;[45] and if it be taken instead of Mayer's, which last, on account of its simplicity, I have employed in the preceding calculations, it will give a quantity somewhat different, though not such as to affect the general result. It makes the acceleration for 4383 years, dated from the beginning of the Calyougham, to be greater by 17′, 39″, than was found from Mayer's rule, and greater consequently by 16′, 32″, than was deduced from the tables of Chrisnabouram. It is plain, that this coincidence is still near enough to leave the argument, that is founded on it, in possession of all its force, and to afford a strong confirmation of the accuracy of the theory, and the authenticity of the tables.

That observations made in India, when all Europe was barbarous or uninhabited, and investigations into the most subtle effects of gravitation made in Europe, near five thousand years afterwards, should thus come in mutual support of one another, is perhaps the most striking example of the progress and vicissitude of science, which the history of mankind has yet exhibited.

29. This, however, is not the only instance of the same kind that will occur, if, from examining the radical places and mean motions in the Indian astronomy, we proceed to consider some other of its elements, such as, the length of the year, the inequality of the sun's motion, and the obliquity of the ecliptic, and compare them with the conclusions deduced, from the theory of gravity, by M. De La Grange. To that geometer, physical astronomy is indebted for one of the most beautiful of its discoveries, viz. that all the variations in our system are periodical; so that though every thing, almost without exception, be subject to change, it will, after a certain interval, return to the same state in which it is at present, and leave no room for the introduction of disorder, or of any irregularity that might constantly increase. Many of these periods, however, are of vast duration. A great number of ages, for instance, must elapse before the year be again exactly of the same length, or the sun's equation of the same magnitude as at present.[46] An astronomy, therefore, which professes to be so ancient as the Indian, ought to differ considerably from ours in many of its elements. If indeed these differences are irregular, they are the effects of chance, and must be accounted errors; but if they observe the laws, which theory informs us that the variations in our system do actually observe, they must be held as the most undoubted marks of authenticity.

We are to examine, as M. Bailly has done, which of these takes place in the case before us.[47]

30. The tables of Tirvalore, which, as we have seen, refer their date to the beginning of the Calyougham, make the siderial year to consist of 365^{d}, 6^{h}, 12′, 30″; and therefore the tropical of 365^{d}, 5^{h}, 50′, 35″, which is 1′, 46″, longer than that of De La Caille.[48] Now, the tropical year was in reality longer at that time than it is at present; for though the siderial year, or the time which the earth takes to return from one point of space to the same point again, is always of the same magnitude, yet the tropical year being affected by the precession of the equinoxes, is variable by a small quantity, which never can exceed 3′, 40″, and which is subject to slow, and unequal alternations of diminution and increase. A theorem, expressing the law and the quantity of this variation, has been investigated by M. De La Grange, in the excellent memoir already mentioned;[49] and it makes the year 3102 before Christ 40½″ longer than the year at the beginning of the present century.[50] The year in the tables of Tirvalore is therefore too great by 1′, 5½″.

31. But the determination of the year is always from a comparison of observations made at a considerable interval from one another; and, even to produce a degree of accuracy much less than what we see belongs to the tables of Tirvalore, that interval must have been of several ages. Now, says M. Bailly, if we suppose these observations to have been made in that period of 2400 years, immediately preceding the Calyougham, to which the Brahmins often refer; and if we also suppose the inequality of the precession of the equinoxes, to increase as we go back, in proportion to the square of the times, we shall find, that, at the middle of this period, or 1200 years before the beginning of the Calyougham, the length of the year was 365^{d}, 5^{h}, 50′, 41″, almost precisely as in the tables of Tirvalore. And hence it is natural to conclude, that this determination of the solar year is as ancient as the year 1200 before the Calyougham, or 4300 before the Christian era.[51]

32. In this reasoning, however, it seems impossible to acquiesce; and. M. Bailly himself does not appear to have relied on

it with much confidence.[52] We are not at liberty to suppose, that the precession of the equinoxes increases in the ratio above mentioned, or, which is the same, that the equinoctial points go back with a motion equably retarded. If, by M. De La Grange's formula, we trace back, step by step, the variation of the solar year, we shall find, that about the beginning of the Calyougham, it had nearly attained the extreme point of one of those vibrations, which many centuries are required to complete; and that the year was then longer than it has ever been since, or than it had been for many ages before. It was 40½″ longer than it is at present; but, at the year 5500 before Christ, it was only 29″ longer than at present, instead of 2′, 50″, which is the result of M. Bailly's supposition. During all the intervening period of 2400 years, the variation of the year was between these two quantities; and we cannot therefore, by any admissible supposition, reduce the error of the tables to less than 1′, 5″. The smallness of this error, though extremely favourable to the antiquity, as well as the accuracy of the Indian astronomy, is a circumstance from which a more precise conclusion can hardly be deduced.

33. The equation of the sun's centre is an element in the Indian astronomy, which has a more unequivocal appearance of belonging to an earlier period than the Calyougham. The maximum of that equation is fixed, in these tables, at 2°, 10′, 32″. It is at present, according to M. De La Caille, 1°, 55½′, that is, 15′ less than with the Brahmins. Now, M. De La Grange has shown, that the sun's equation, together with the eccentricity of the earth's orbit, on which it depends, is subject to alternate diminution and increase, and accordingly has been diminishing for many ages. In the year 3102 before our era, that equation was 2°, 6′, 28½″; less, only by 4′, than in the tables of the Brahmins. But if we suppose the Indian astronomy to be founded on observations that preceded the Calyougham, the determination of this equation will be found to be still more exact. Twelve hundred years before the commencement of that period, or about 4300 years before our era, it appears, by computing from M. De La Grange's formula, that the equation of the sun's centre was actually 2°, 8′, 16″; so that if the Indian astronomy be as old as that period, its error with respect to this equation is but of 2′.[53]

34. The obliquity of the ecliptic is another element in which the Indian astronomy and the European do not agree, but where

their difference is exactly such as the high antiquity of the former is found to require. The Brahmins make the obliquity of the ecliptic 24°. Now, M. De La Grange's formula for the variation of the obliquity,[54] gives 22′, 32″, to be added to its obliquity in 1700, that is, to 23°, 28′, 41″, in order to have that which took place in the year 3102 before our era. This gives us 23°, 51′, 13″, which is 8′, 47″, short of the determination of the Indian astronomers. But if we suppose, as in the case of the sun's equation, that the observations on which this determination is founded, were made 1200 years before the Calyougham, we shall find that the obliquity of the ecliptic was 23°, 57′, 45″, and that the error of the tables did not much exceed 2′.[55]

35. Thus, do the measures which the Brahmins assign to these three quantities, the length of the tropical year, the equation of the sun's centre, and the obliquity of the ecliptic, all agree in referring the epoch of their determination to the year 3102 before our era, or to a period still more ancient. This coincidence in three elements, altogether independent of one another, cannot be the effect of chance. The difference, with respect to each of them, between their astronomy and ours, might singly perhaps be ascribed to inaccuracy; but that three errors, which chance had introduced, should be all of such magnitudes, as to suit exactly the same hypothesis concerning their origin, is hardly to be conceived. Yet there is no other alternative, but to admit this very improbable supposition, or to acknowledge that the Indian astronomy is as ancient as one, or other of the periods above mentioned.

36. This conclusion would receive great additional confirmation, could we follow M. Bailly in his analysis of the astronomy of the planets, contained in the tables of Chrisnabouram;[56] but the length to which this paper is already extended, will allow only a few of the most remarkable particulars to be selected.

In these tables, which are for the epoch 1491, the mean motions are given with considerable accuracy, but without an appearance of being taken from Ptolemy, or any of the astronomers already mentioned. Two inequalities, called the *schigram* and the *manda*, are also distinguished in each of the planets, both superior and inferior.[57] The first of these is the same with that which we call the parallax of the earth's orbit, or the apparent inequality of a planet, which arises not from its own motion, but from that of the observer; but whether it is ascribed, in the Indian astronomy, to its true cause, or to the motion of the planet in an epicycle, is a question about which the tables give no direct information. The magnitude, however, of this equation is assigned, for each of the planets, with no small exactness, and is varied, in the different points of its orbit, by a law which approaches very near to the truth.

The other inequality coincides with that of the planet's centre, or that which arises from the eccentricity of its orbit, and it is given near the truth for all the planets, except Mercury, by which, as is no wonder, the first astronomers were, every where, greatly deceived. Of this inequality, it is supposed, just as in the cases of the sun and moon, that it is always as the sine of the planet's distance from the point of its slowest motion, or from what we call its *aphelion*, and is consequently greatest at 90° from that point.

It were to be wished that we knew the etymology of the names which are given to these inequalities, as it might explain the theory which guided the authors of the tables. The titles of our astronomical tables, the terms *aphelion*, *heliocentric* or *geocentric place*, &c. would discover the leading ideas of the Copernican system, were no other description of it preserved.

37. In the manner of applying these two inequalities, to correct the mean place of a planet, the rules of this astronomy are altogether singular. In the case of a superior planet, they do not make use of the mean anomaly, as the argument for finding out the equation *manda*, but of that anomaly, when corrected first by half the equation *schigram*, and afterwards by half the equation *manda*.[58] By the equation of the centre, obtained with this argument, the mean longitude of the planet is corrected, and its true heliocentric place consequently found, to which there is again applied the parallax of the annual orbit, that the geocentric place may be obtained. The only difficulty here, is in the method of taking out from the tables the equation to the centre.

It is evidently meant for avoiding some inaccuracy, which was apprehended from a more direct method of calculation, but of which, even after the ingenious remarks of M. Bailly, it seems impossible to give any clear and satisfactory account.

38. The manner of calculating the places of the inferior planets has a great resemblance to the former; with this difference, however, that the equation *manda*, or of the centre, is applied to correct, not the mean place of the planet, but the mean place of the sun; and to this last, when so corrected, is applied the equation *schigram* which involves the planet's elongation from the sun, and gives its geocentric place.[59] This necessarily implies, that the centre, about which the inferior planets revolve, has the same apparent mean motion with the sun: but whether it be a point really different from the sun, or the same: and, if the same, whether it be in motion or at rest, are left entirely undetermined, and we know not, whether, in the astronomy of India, we have here discovered a resemblance to the Ptolemaic, the Tychonic, or the Copernican system.

39. These tables, though their radical places are for the year 1491 of our era, have an obvious reference to the great epoch of the Calyougham. For if we calculate the places of the planets from them, for the beginning of the astronomical year, at that epoch, we find them all in conjunction with the sun in the beginning of the moveable Zodiac, their common longitude being 10^s, 6^o.[60] According to our tables, there was, at that time, a conjunction of all the planets, except Venus, with the sun; but they were, by no means, so near to one another as the Indian astronomy represents. It is true, that the exact time of a conjunction cannot be determined by direct observation: but this does not amount to an entire vindication of the tables; and there is reason to suspect, that some superstitious notions, concerning the beginning of the Calyougham, and the signs by which nature must have distinguished so great an epoch, has, in this instance at least, perverted the astronomy of the Brahmins. There are, however, some coincidences between this part of their astronomy, and the theory of gravity, which must not be forgotten.

40. The first of these respects the *aphelion* of Jupiter, which, in the tables, is supposed to have a retrograde motion of 15° in 200,000 years[61] and to have been, at the epoch of 1491, in longitude 5^s, 21°, 40′, 20″, from the beginning of the Zodiac. It follows, therefore, that in the year 3102 before Christ, the

longitude of Jupiter’s *aphelion* was 3^s, 27°, 0′, reckoned from the equinox. Now, the same, computed from M. De La Lande’s tables, is only 3^s, 16°, 48′, 58″; so that there would seem to be an error of more than 10° in the tables of the Brahmins. But, if it be considered, that Jupiter’s orbit is subject to great disturbances, from the action of Saturn, which M. De La Lande does not profess to have taken into account, we will be inclined to appeal once more to M. De La Grange’s formulas, before we pass sentence against the Indian astronomy.[62]

From one of these formulas, we find, that the true place of the *aphelion* of Jupiter, at the time above mentioned, was 3^s, 26°, 50′, 40″, which is but 10′, 40″, different from the tables of Chrisnabouram. The French and Indian tables are therefore both of them exact, and only differ because they are adapted to ages near five thousand years distant from one another.

41. The equation of Saturn’s centre is an instance of the same kind. That equation, at present, is according to M. De La Lande, 6°, 23′, 19″; and hence, by means of one of the formulas above mentioned, M. Bailly calculates, that, 3102 years before Christ, it was 7°, 41′, 22″.[63] The tables of the Brahmins make it 7°, 39′, 44″, which is less only by 1′, 38″, than the preceding equation, though greater than that of the present century by 1°,16′, 25″.

42. M. Bailly remarks, that the equations for the other planets are not given with equal accuracy, and afford no more such instances as the former. But it is curious to observe, that new researches into the effects of gravitation, have discovered new coincidences of the same kind; and that the two great geometers, who have shared between them the glory of perfecting the *theory of disturbing forces*, have each contributed his part to establish the antiquity of the Indian astronomy. Since the publication of M. Bailly’s work, two other instances of an exact agreement, between the elements of these tables, and the conclusions deduced from the theory of gravity, have been observed, and communicated to him by M. De La Place, in a letter, inserted in the *Journal des Savans*.

In seeking for the cause of the secular equations, which modern astronomers have found it necessary to apply to the mean motion of Jupiter and Saturn, M. De La Place has discovered, that there are inequalities belonging to both these planets, arising from their mutual action on one another, which have long periods, one of them no less than 877 years; so that the mean motion must appear different, if it be determined from observations made in different parts of those periods. 'Now, I find,' says he, 'by my theory, that at the Indian epoch of 3102 years before Christ, the apparent and annual mean motion of Saturn was 12°, 13′, 14″, and the Indian tables make it 12°, 13′, 13″.

'In like manner, I find, that the annual and apparent mean motion of Jupiter at that epoch was 30°, 20′, 42″, precisely as in the Indian astronomy.'[64]

43. Thus have we enumerated no less than nine astronomical elements,[65] to which the tables of India assign such values as do, by no means, belong to them in these later ages, but such as the theory of gravity proves to have belonged to them three thousand years before the Christian era. At that time, therefore, or in the ages preceding it, the observations must have been made from which these elements were deduced. For it is abundantly evident, that the Brahmins of later times, however willing they might be to adapt their tables to so remarkable an epoch as the Calyougham, could never think of doing so, by substituting, instead of quantities which they had observed, others which they had no reason to believe had ever existed. The elements in question are precisely what these astronomers must have supposed invariable, and of which, had they supposed them to change, they had no rules to go by for ascertaining the variations; since, to the discovery of these rules is required, not only all the perfection to which astronomy is, at this day, brought in Europe, but all that which the sciences of motion and of extension have likewise attained. It is no less clear, that these coincidences are not the work of accident; for it will scarcely be supposed that chance has adjusted the errors of the Indian astronomy with such singular felicity, that observers, who could not discover the true state of the heavens, at the age in which they lived, have succeeded in describing one which took place several thousand years before they were born.

44. The argument, however, which regards the originality of these tables, is, in some measure, incomplete, till we have

considered the geometrical principles which have been employed in their construction. For it is not impossible, that when seen connected by those principles, and united into general theorems, they may be found to have relations to the Greek astronomy, which did not appear, when the parts were examined singly. On this subject, therefore, I am now to offer a few observations.

45. The rules by which the phenomena of eclipses are deduced from the places of the sun and moon, have the most immediate reference to geometry; and of these rules, as found among the Brahmins of Tirvalore, M. Le Gentil has given a full account, in the *Memoir* that has been so often quoted. We have also an account of the method of calculation used at Chrisnabouram by Fr Du Champ.[66]

It is a necessary preparation, in both of these, to find the time of the sun's continuance above the horizon, at the place and the day for which the calculation of an eclipse is made, and the rule by which the Brahmins resolve this problem, is extremely simple and ingenious. At the place for which they calculate, they observe the shadow of a gnomon on the day of the equinox, at noon, when the sun, as they express it, is in the middle of the world. The height of the gnomon is divided into 720 equal parts, in which parts the length of the shadow is also measured. One third of this measure is the number of minutes by which the day, at the end of the first month after the equinox, exceeds twelve hours; four-fifths of this excess is the increase of the day during the second month; and one-third of it is the increase of the day, during the third month.[67]

46. It is plain, that this rule involves the supposition, that, when the sun's declination is given, the same ratio every where exists between the arch which measures the increase of the day at any place, and the tangent of the latitude; for that tangent is the quotient which arises from dividing the length of the shadow by the height of the gnomon. Now, this is not strictly true; for such a ratio only subsists between the chord of the arch, and the tangent above mentioned. The rule is, therefore, but an approximation to the truth, as it necessarily supposes the arch in question to be so small as to coincide nearly with its chord. This supposition holds only of places in low latitudes; and the rule which is founded on it, though it may safely be applied in countries between the tropics, in those that are more remote from the

equator, would lead into errors too considerable to escape observation.[68]

As some of the former rules, therefore, have served to fix the time, so does this, in some measure, to ascertain the place of its invention. It is the simplification of a general rule, adapted to the circumstances of the torrid zone, and suggested to the astronomers of Hindostan by their peculiar situation. It implies the knowledge of the circles of the sphere, and of spherical trigonometry, and perhaps argues a greater progress in mathematical reasoning, than a theorem that was perfectly accurate would have done. The first geometers must naturally have dreaded nothing so much as any abatement in the rigour of their demonstrations, because they would see no limits to the error and uncertainty, in which they might, by that means, be involved. It was long before the mathematicians of Greece understood how to set bounds to such errors, and to ascertain their utmost extent, whether on the side of excess or defect; in this art, they appear to have received the first lessons so late as the age of Archimedes.

47. The Brahmins having thus obtained the variations of the length of the day, at any place, or what we call the ascensional differences, apply them likewise to another purpose. As they find it necessary to know the point of the ecliptic, which is on the horizon, at the time when an eclipse happens, they have calculated a table of the right ascensions of the points of the ecliptic in time, to which they apply the ascensional differences for the place in question, in order to have the time which each of the signs takes to descend below the horizon of that place.[69] This is exactly the method, as is well known, which the most skillful astronomer, in like circumstances, would pursue. Their table of the differences of right ascension is but for a few points in the ecliptic, viz. the beginning of each sign, and is only carried to minutes of time, or tenths of a degree. It is calculated, however, so far as it goes, with perfect accuracy, and it supposes the obliquity of the ecliptic, as before, to be twenty-four degrees.

Such calculations could not be made without spherical trigonometry, or some method equivalent to it. If, indeed, we would allow the least skill possible to the authors of these tables, we may suppose, that the arches were measured on the circles of a large globe, or armillary sphere, such as we know to have been one of the first instruments of the Egyptian and Greek astronomers. But there are some of the tables where the arches are put down true to seconds, a degree of accuracy which a mechanical method can scarcely have afforded.

48. In another part of the calculation of eclipses, a direct application is made of one of the most remarkable propositions in geometry. In order to have the semiduration of a solar eclipse, they subtract from the square of the sum of the semidiameters of the sun and moon, the square of a certain line, which is a perpendicular from the centre of the sun on the path of the moon; and from the remainder, they extract the square root, which is the measure of the semiduration.[70] The same thing is practised in lunar eclipses.[71] These operations are all founded on a very distinct conception of what happens in the case of an

eclipse, and on the knowledge of this theorem, that, in a right angled triangle, the square on the hypothenuse is equal to the squares on the other two sides. It is curious to find the theorem of Pythagoras in India, where, for aught we know, it may have been discovered, and from whence that philosopher may have derived some of the solid, as well as the visionary speculations, with which he delighted to instruct or amuse his disciples.

49. We have mentioned the use that is made of the semidiameters of the sun and moon in these calculations, and the method of ascertaining them, is deserving of attention. For the sun's apparent diameter, they take four-ninths of his diurnal motion, and for the moon's diameter, one twenty-fifth of her diurnal motion. In an eclipse, they suppose the section of the shadow of the earth, at the distance of the moon, to have a diameter five times that of the moon; and in all this, there is considerable accuracy, as well as great simplicity. The apparent diameters of the sun and moon, increase and diminish with their angular velocities; and though there be a mistake in supposing, that they do so exactly in the same proportion, it is one which, without telescopes and micrometers, cannot easily be observed. The section of the earth's shadow, likewise, if the sun's apparent diameter be given, increases as the moon's increases, or as her distance from the earth diminishes, and nearly enough in the same ratio to justify the rule which is here laid down.

50. The historian of the Academy of Sciences, in giving an account of M. Le Gentil's *Memoir*, has justly observed, that the rule described in it, for finding the difference between the true and apparent conjunction, at the time of a solar eclipse, contains the calculation of the moon's parallax, but substitutes the parallax in right ascension for the parallax in longitude;[72] an error which the authors of this astronomy would probably have avoided, had they derived their knowledge from the writings of Ptolemy. From this supposed parallax in longitude, they next derived the parallax in latitude, where we may observe an application of the doctrine of similar triangles; for they suppose the first of these to be to the last in the constant ratio of 25 to 2, or nearly as the radius to the tangent of the inclination of the moon's orbit to the plane of the ecliptic. We have here, therefore, the application of another geometrical theorem, and that too proceeding on the supposition, that a small portion of the sphere, on each side of the point which the sun occupies at the middle

of the eclipse, may be held to coincide with a plane touching it in that point.

51. The result which the Brahmins thus obtain will be allowed to have great accuracy, if it be considered how simple their rules are, and how long it must be since their tables were corrected by observations. In two eclipses of the moon, calculated in India by their method, and likewise observed there by M. Le Gentil, the error, in neither case, exceeded 23′ of time, (corresponding to one of 13′ of a degree, in the place of the moon); and in the duration and magnitude of the eclipse, their calculation came still nearer to the truth.[73]

52. Since an inequality was first observed in the motions of the sun or moon, the discovery of the law which it follows, and the method of determining the quantity of it, in the different points of their orbits, has been a problem of the greatest importance; and it is curious to inquire, in what manner the astronomers of India have proceeded to resolve it. For this purpose, we must examine the tables of the *chaiaa*, or equations of the centre for the sun and moon, and of the *manda*, or equations of the centre for the planets. With respect to the first, as contained in the tables of Siam, M. Cassini observed, that the equations followed the ratio of the sines of the mean distances from the apogee; but as they were calculated only for a few points of the orbit, it could not be known with what degree of exactness this law was observed. Here, however, the tables of Chrisnabouram remove the uncertainty, as they give the equation of the centre for every degree of the mean motion, and make it nearly as the sine of the distance from the apogee.

They do so, however, only nearly; and it will be found on trial, that there is, in the numbers of the table, a small, but regular variation from this law, which is greatest when the argument is 30°, though even there it does not amount to a minute. The sun's equation, for instance, which, when greatest, or when the argument is 90°, is, by these tables, 2°, 10′, 32″, should be, when the argument is 30°, just the half of this, or 1°, 5′, 16″, did the numbers in the table follow exactly the ratio of the sines of the argument. It is, however, 1°, 6′, 3″; and this excess of 47″ cannot have arisen from any mistake about the ratio of the sine of 30° to that of 90°, which is shown to be that of 1 to 2, by a proposition in geometry[74] much too simple to have been unknown to the authors of these tables. The rule, therefore, of the equations, being proportional exactly to the sines of the argument, is not what was followed, or intended to be followed, in the calculation of them. The differences, also, between the numbers computed by that rule, and those in the tables, are perfectly regular, decreasing from the point of 30°, both ways toward the beginning and end of the quadrant, where they vanish altogether.

These observations apply also to the tables of Narsapur[75], and to the moon's equations, as well as to the sun's, with a circumstance, however, which is not easily accounted for, viz. that the differences between the numbers calculated by M. Cassini's rule, and those in the tables, are not greater in the case of the moon than of the sun, though the equation of the latter be more than double that of the former. They apply also to the tables *manda* of the planets, where the equations are greater than the ratio of the sines of their arguments requires, the excess being greatest at 30°, and amounting to some minutes in the equations of Saturn, Jupiter and Mars, in which last it is greatest of all.

53. Though, for these reasons, it is plain, that the rule of M. Cassini is not the same with that of the Brahmins, it certainly includes the greater part of it; and if the latter, whatever it may have been, were expressed in a series, according to the methods of the modern analysis, the former would be the first term of that series. We are not, however, much advanced in our inquiry in consequence of this remark; for the first terms of all the series, which can, on any hypothesis, express the relation of the

equation of the centre to the anomaly of a planet, are so far the same, that they are proportional to the sine of that anomaly; and it becomes therefore necessary to search among these hypotheses, for that by which the series of small differences, described above, may be best represented. It is needless to enter here into any detail of the reasonings by which this has been done, and by which I have found, that the argument in the table bears very nearly the same relation to the corresponding numbers, that the anomaly of the eccentric does to the equation of the centre. By the anomaly of the eccentric, however, I do not mean the angle which is known by that name in the solution of Kepler's problem, but that which serves the same purpose with it, on the supposition of a circular orbit, and an uniform angular motion about a point which is not the centre of that orbit, but which is as distant from it, on the one side, as the earth (or the place of the observer), is on the other. It is the angle, which, in such an orbit, the line drawn from the planet to the centre, makes with the line drawn from thence to the apogee; and the argument in the Indian tables coincides with this angle.

This hypothesis of a double eccentricity, is certainly not the simplest that may be formed with respect to the motion of the heavenly bodies, and is not what one would expect to meet with here; but it agrees so well with the tables, and gives the equations from the arguments so nearly, especially for the moon and the planets, that little doubt remains of its being the real hypothesis on which these tables were constructed.[76]

54. Of this, the method employed to calculate the place of any of the five planets from these tables, affords a confirmation. But, in reasoning about that method, it is necessary to put out of the question the use that is made of the parallax of the annual orbit, or of the *schigram*, in order to have the argument for finding the equation of the centre, which is evidently faulty, as it makes that equation to be affected by a quantity, (the parallax of the annual orbit), on which it has in reality no dependence. To have the rule free from error, it is to be taken, therefore, in the case when there is no parallax of the annual orbit,

that is, when the planets are in opposition or conjunction with the sun. In that case, the mean anomaly is first corrected by the subtraction or addition of half the equation that belongs to it in the table. It then becomes the true argument for finding, from that same table, the equation of the centre, which is next applied to the mean anomaly, to have the true. Now, this agrees perfectly with the conclusion above; for the mean anomaly, by the subtraction or addition of half the equation belonging to it in the table, is converted, almost precisely, into the anomaly of the eccentric, and becomes therefore the proper argument for finding out the equation, which is to change the mean anomaly into the true.[77] There can be no doubt, of consequence, that the conclusion we have come to is strictly applicable to the planets, and that the orbit of each of them, in this astronomy, is supposed to be a circle, the earth not being in its centre, but the angular velocity of the planet being uniform about a certain point, as far from that centre on the one side, as the earth is on the opposite.

55. Between the structure of the tables of the equations of the sun and moon, and the rules for using them, there is not the same consistency; for in both of them, the argument, which we have found to be the eccentric anomaly, is nevertheless treated as the mean. So far as concerns the sun, this leads to nothing irreconcilable with our supposition, because the sun's equation being small, the difference will be inconsiderable, whether the argument of that equation be treated as the eccentric or the mean anomaly.

But it is otherwise with respect to the moon, where the difference between considering the argument of the equation as the mean, or as the eccentric anomaly, is not insensible. The authority of the precepts, and of the tables, are here opposed to one another; and we can decide in favour of the latter, only because it leads to a more accurate determination of the moon's place than the former. It would indeed be an improvement on their method of calculation, which the Brahmins might make consistently with the principles of their own astronomy, to extend to the moon their rule for finding the equation of the centre for the planets. They would then avoid the palpable error of making the maximum of the moon's equation at the time when her mean anomaly is 90°, and would ascertain her place every where with greater exactness. It is probable that this is the method which they were originally directed to follow.

56. From the hypothesis which is thus found to be the basis of the Indian astronomy, one of the first conclusions which presents itself, is the existence of a remarkable affinity between the system of the Brahmins and that of Ptolemy. In the latter, the same thing was supposed for the five planets, that appears in the former to have been universally established, viz. that their orbits were circles, having the earth within them, but removed at a small distance from the centre, and that each planet described the circumference of its orbit, not with an uniform velocity, but with one that would appear uniform, if it were viewed from a point as far above the centre of the orbit, as that centre is above the earth. This point was, in the language of Ptolemy's astronomy, the centre of the *equant*.

Now, concerning this coincidence, it is the more difficult to judge, as, on the one hand, it cannot be ascribed to accident, and, on the other, it may be doubted, whether it arises necessarily out of the nature of the subject, or is a consequence of some unknown communication between the astronomers of India and of Greece.

The first hypothesis by which men endeavoured to explain the phenomena of the celestial motions, was that of an uniform motion in a circle, which had the earth for its centre. This hypothesis was, however, of no longer continuance than till instruments of tolerable exactness were directed to the heavens. It was then immediately discovered, that the earth was not the centre of this uniform motion; and the earth was therefore supposed to be placed at a certain distance from the centre of the orbit, while the planet revolved in the circumference of it with the same velocity as before. Both these steps may be accounted necessary; and in however many places of the earth, and however cut off from mutual intercourse, astronomy had begun to be cultivated, I have no doubt that these two suppositions would have succeeded one another, just as they did among the Greek astronomers.

But when more accurate observations had shown the insufficiency even of this second hypothesis, what ought naturally to be the third, may be thought not quite so obvious; and if the Greeks made choice of that which has been described above, it may seem to have been owing to certain metaphysical notions concerning the simplicity and perfection of a circular and uniform motion, which inclined them to recede from that supposition, no farther than appearances rendered absolutely necessary. The same coincidence between the ideas of metaphysics and astronomy, cannot be supposed to have taken place in other countries; and therefore, where we find this third hypothesis to have prevailed, we may conclude that it was borrowed from the Greeks.

57. Though it cannot be denied that, in this reasoning, there is some weight, yet it must be observed, that the introduction of the third hypothesis did not rest among the Greeks altogether on the coincidence above mentioned. It was suited to their progress in mathematical knowledge, and offered almost the only system, after the two former were exploded, which rendered the planetary motions the subject of geometrical reasoning, to men little versed in the methods of approximation. This was the circumstance then, which, more than any other, probably influenced them in the choice of this hypothesis, though we are not to look for it as an argument stated in their works, but may judge of the influence it had, from the frequency with which, many ages afterwards, the *ageometresia (*Transliterated from the original Greek letters: *Editor.)* of Kepler's system was objected to him by his adversaries; an objection to which that great man seemed to pay more attention than it deserved.

There is reason therefore to think, that in every country where astronomy and geometry had neither of them advanced beyond a certain point, the hypothesis of the *equant* would succeed to that of a simple eccentric orbit, and therefore cannot be admitted as a proof, that the different systems in which it makes a part, are necessarily derived from the same source. Some other circumstances attending this hypothesis, as it is found in the Indian tables, go still farther, and seem quite inconsistent with the supposition that the authors of these tables derived it from the astronomers of the West. For, *first*, it is applied by them to all the heavenly bodies, that is, to the sun and moon, as well as the planets. With Ptolemy, and with all those who founded their system on his, it extended only to the latter, insomuch that

Kepler's great reformation in astronomy, the discovery of the elliptic orbits, began from his proving, that the hypothesis of the *equant* was as necessary to be introduced for the sake of the sun's orbit, as for those of the planets, and that the eccentricity in both cases, must be bisected. It is, therefore, on a principle no way different from this of Kepler, that the tables of the sun's motion are computed in the Indian astronomy, though it must be allowed, that the method of using them is not perfectly consistent with this idea of their construction.

Secondly, the use made of the anomaly of the eccentric in these tables, as the argument of the equation of the centre, is altogether peculiar to the Indian astronomy. Ptolemy's tables of that equation for the planets, though they proceed on the same hypothesis, are arranged in a manner entirely different, and have for their argument the mean anomaly. The angle which we call the anomaly of the eccentric, and which is of so much use in the Indian tables, is not employed at all in the construction of his,[78] nor, I believe, in those of any other astronomer till the time of Kepler; and even by Kepler it was not made the argument of the equation to the centre. The method, explained above, of converting the mean anomaly into that of the eccentric, and consequently into the argument of the equation, is another peculiarity, and though simple and ingenious, has not the accuracy suited to the genius of the Greek astronomy, which never admitted even of the best approximation, when a rigorous solution could be found; and, on the whole, if the resemblance of these two systems, even with all the exceptions that have been stated, must still be ascribed to some communication between the authors of them, that communication is more likely to have gone from India to Greece, than in the opposite direction. It may perhaps be thought to favour this last opinion, that Ptolemy has no where demonstrated the necessity of assigning a double eccentricity to the orbits of the planets, and has left room to suspect, that authority, more than argument, has influenced this part of his system.

58. In tables of the planets, we remarked another equation, (*schigram*) answering to the parallax of the earth's orbit, or the difference between the heliocentric and the geocentric place of the planet. This parallax, if we conceive a triangle to be formed by lines drawn from the sun to the earth and to the planet, and also from the planet to the earth, is the angle of that triangle,

subtended by the line drawn from the sun to the earth. And so, accordingly, it is computed in these tables; for if we resolve such a triangle as is here described, we will find the angle, subtended by the earth's distance from the sun, coincide very nearly with the *schigram*.

The argument of this equation is the difference between the mean longitude of the sun and of the planet. The orbits are supposed circular; but whether the inequality in question was understood to arise from the motion of the earth, or from the motion of the planet in an epicycle, the centre of which revolves in a circle, is left undetermined, as both hypotheses may be so adjusted as to give the same result with respect to this inequality. The proportional distances of the planets from the earth or the sun, may be deduced from the tables of these equations, and are not far from the truth.

59. The preceding calculations must have required the assistance of many subsidiary tables, of which no trace has yet been found in India. Besides many other geometrical propositions, some of them also involve the ratio which the diameter of a circle was supposed to bear to its circumference, but which we would find it impossible to discover from them exactly, on account of the small quantities that may have been neglected in their calculations. Fortunately, we can arrive at this knowledge, which is very material when the progress of geometry is to be estimated, from a passage in the *Ayeen Akbery*, where we are told, that the Hindoos suppose the diameter of a circle to be to its circumference as 1250 to 3927,[79] and where the author, who knew that this was more accurate than the proportion of Archimedes, (7 to 22), and believed it to be perfectly exact, expresses his astonishment, that among so simple a people, there should be found a truth, which, among the wisest and most learned nations, had been sought for in vain.

The proportion of 1250 to 3927 is indeed a near approach to the quadrature of the circle; it differs little from that of Metius, 113 to 355, and is the same with one equally remarkable, that of I to 3.1416. When found in the simplest and most elementary way, it requires a polygon of 768 sides to be inscribed in a circle; an operation which cannot be arithmetically performed without the knowledge of some very curious properties of that curve, and, at least, nine extractions of the square root, each as far as ten places of decimals. All this must have been accomplished in

India; for it is to be observed, that the above mentioned proportion cannot have been received from the mathematicians of the West. The Greeks left nothing on this subject more accurate than the theorem of Archimedes; and the Arabian mathematicians, seem not to have attempted any nearer approximation. The geometry of modern Europe can much less be regarded as the source of this knowledge. Metius and Vieta were the first, who, in the quadrature of the circle, surpassed the accuracy of Archimedes; and they flourished at the very time when the Institutes of Akbar were collected in India.

60. On the grounds which have now been explained, the following general conclusions appear to be established.

I. The observations on which the astronomy of India is founded, were made more than three thousand years before the Christian era; and, in particular, the places of the sun and the moon, at the beginning of the Calyougham, were determined by actual observation.

This follows from the exact agreement of the radical places in the tables of Tirvalore, with those deduced for the same epoch from the tables of De La Caille and Mayer, and especially in the case of the moon, when regard is had to her acceleration. It follows, too, from the position of the fixed stars in respect of the equinox, as represented in the Indian Zodiac; from the length of the solar year; and, lastly, from the position and form of the orbits of Jupiter and Saturn, as well as their mean motions; in all of which, the tables of the Brahmins, compared with ours, give the quantity of the change that has taken place, just equal to that which the action of the planets on one another may be shown to have produced, in the space of forty-eight centuries, reckoned back from the beginning of the present.

Two other of the elements of this astronomy, the equation of the sun's centre, and the obliquity of the ecliptic, when compared with those of the present time, seem to point to a period still more remote, and to fix the origin of this astronomy 1000 or 1200 years earlier, that is, 4300 years before the Christian era; and the time necessary to have brought the arts of calculating and observing to such perfection as they must have attained at the beginning of the Calyougham, comes in support of the same conclusion.

Of such high antiquity, therefore, must we suppose the origin of this astronomy; unless we can believe, that all the coincidences which have been enumerated, are but the effects of chance; or what indeed were still more wonderful, that, some ages ago, there had arisen a Newton among the Brahmins, to discover that universal principle which connects, not only the most distant regions of space, but the most remote periods of duration; and a De La Grange, to trace, through the immensity of both, its most subtle and complicated operations.

II. Though the astronomy which is now in the hands of the Brahmins, is so ancient in its origin, yet it contains many rules and tables that are of later construction.

The first operation for computing the moon's place from the tables of Tirvalore, requires that 1,600,984 days should be subtracted from the time that has elapsed since the beginning of the Calyougham, which brings down the date of the rule to the year 1282 of our era. At this time, too, the place of the moon, and of her apogee, are determined with so much exactness, that it must have been done by observation, either at the instant referred to, or a few days before or after it. At this time, therefore, it is certain, that astronomical observations were made in India, and that the Brahmins were not, as they are now, without any knowledge of the principles on which their rules are founded. When that knowledge was lost, will not perhaps be easily ascertained; but there are, I think, no circumstances in the tables from which we can certainly infer the existence of it at a later period than what has just been mentioned; for though there are more modern epochs to be found in them, they are such as may have been derived from the most ancient of all, by help of the mean motions in the tables of Chrisnabouram,[80] without any other skill than is required to an ordinary calculation. Of these epochs, beside what have been occasionally mentioned in the course of our remarks, there is one (involved in the tables of Narsapur) as late as the year 1656, and another as early as the year 78 of our era, which marks the death of Salivaganam, one of their princes, in whose reign a reform is said to have taken place in the methods of their astronomy. There is no reference to any intermediate date, from that time to the beginning of the Calyougham.

The parts of this astronomy, therefore, are not all of the same antiquity; nor can we judge, merely from the epoch to which the tables refer, of the age, to which they were originally adapted. We have seen, that the tables of Chrisnabouram, though they profess to be no older than the year 1491 of our era, are, in reality, more ancient than the tables of Tirvalore, which are dated from the Calyougham, or at least have undergone fewer alterations. This we concluded from the slow motion given to the moon, in the former of these tables, which agreed, with such wonderful precision, with the secular equation applied to that planet by Mayer, and explained by M. De La Place.

But it appears, that neither the tables of Tirvalore or Chrisnabouram, nor any with which we are yet acquainted, are the most ancient to be found in India. The Brahmins constantly refer to an astronomy at Benares, which they emphatically style *the ancient,*[81] and which they say is not now understood by them, though they believe it to be much more accurate than that by which they calculate. That it is more accurate, is improbable; that it may be more ancient, no one who has duly attended to the foregoing facts and reasonings, will think impossible; and every one, I believe, will acknowledge, that no greater service could be rendered to the learned world, than to rescue this precious fragment from obscurity. If that is ever to be expected, it is when the zeal for knowledge has formed a literary society among our countrymen in Bengal, and while that society is directed by the learning and abilities of Sir William Jones. Indeed, the farther discoveries which may be made with respect to this science, do not interest merely the astronomer and the mathematician, but every one who delights to mark the progress of mankind, or is curious to look back on the ancient inhabitants of the globe. It is through the medium of astronomy alone that a few rays from those distant objects can be conveyed in safety to the eye of a modern observer, so as to afford him a light, which, though it be scanty, is pure and unbroken, and free from the false colourings of vanity and superstition.

III. The basis of the four systems of astronomical tables which we have examined, is evidently the same.

Though these tables are scattered over an extensive country, they seem to have been all originally adapted, either to the same meridian, or to meridians at no great distance, which traverse what we may call the classical ground of India, marked by the ruins of Canoge, Palibothra and Benares. They contain rules that have originated between the tropics; whatever be their epoch, they are all, by their mean motions, connected with that of the Calyougham; and they have besides one uniform character which it is perhaps not easy to describe. Great ingenuity has been exerted to simplify their rules; yet, in no instance almost, are they reduced to the utmost simplicity; and when it happens that the operations to which they lead are extremely obvious, these are often involved in an artificial obscurity. A Brahmin frequently multiplies by a greater number than is necessary, where he seems to gain nothing but the trouble of dividing by one that is greater in the same proportion; and he calculates the era of Salivaganam with the formality of as many distinct operations as if he were going to determine the moon's motion since the beginning of the Calyougham. The same spirit of exclusion, the same fear of communicating his knowledge, seems to direct the calculus which pervades the religion of the Brahmin; and in neither of them, is he willing to receive or to impart instruction. With all these circumstances of resemblance, the methods of this astronomy are as much diversified as we can suppose the same system to be, by passing through the hands of a succession of ingenious men, fertile in resources, and acquainted with the variety and extent of the science which they cultivated. A system of knowledge, which is thus assimilated to the genius of the people, that is diffused so widely among them, and diversified so much, has a right to be regarded, either as a native, or a very ancient inhabitant of the country where it is found.

IV. The construction of these tables implies a great knowledge of geometry, arithmetic, and even of the theoretical part of astronomy.

In proof of this, it is unnecessary to recapitulate the remarks that have been already made. It may be proper, however, to add, that the method of calculating eclipses, to which these tables are subservient, is, in no respect, an empirical one, founded on the mere observation of the intervals at which eclipses return, one after another, in the same order. It is indeed remarkable, that we find no trace here of the period of 6585 days and 8 hours, or 223 lunations, the *Saros* of the Chaldean astronomers, which they employed for the prediction of eclipses, and which (observed with more or less accuracy) the first astronomers every where must have employed, before they were able to analyse eclipses, and to find out the laws of every cause contributing to them. That empirical method, if it once existed in India, is now forgotten, and has long since given place to the more scientific and accurate one, which offers a complete analysis of the phenomena, and calculates, one by one, the motions of the sun, of the moon, and of the node.

But what, without doubt, is to be accounted the greatest refinement in this system, is the hypothesis employed in calculating the equations of the centre for the sun, moon and planets, that, viz. of a circular orbit having a double eccentricity, or having its centre in the middle, between the earth and the point about which the angular motion is uniform.[82] If to this we add the great extent of geometrical knowledge requisite to combine this, and the other principles of their astronomy together and to deduce from them the just conclusions; the possession of a calculus equivalent to trigonometry; and, lastly, their approximation to the quadrature of the circle, we shall be astonished at the magnitude of that body of science, which must have enlightened the inhabitants of India in some remote age, and which, whatever it may have communicated to the western nations, appears to have received nothing from them.

Such are the conclusions that seem to me to follow, with the highest probability, from the facts which have been stated. They are, without doubt, extraordinary; and have no other claim to our belief, except that, as I think has been fully proved, their being false were much more wonderful than their being true. There are but few things, however, of which the contrary is impossible. It must be remembered, that the whole evidence on this subject is not yet before the public, and that the repositories of Benares may contain what is to confirm or to invalidate these observations.

Notes

1. *Mem. Acad. Scien.*, tom.8, p.281 & c.

2. *Traite de L'Astronomie lndienne et Orientale*, par M. Bailly. Paris, 1787.

3. *Mem. sur I'Astronomie des Indiens*, par M.Le GENTIL, *Hist. Acad. Scien.*, 1772, II, p.207. The phrase which we here translate *constellations*, signifies *the places of the moon in the twelve signs.*

4. *Mem. Acad. Scien.*, 1772 II, p.189

5. *Ibid.*209.

6. *Mem. Acad. Scien.* 1772 II, p.200. The Zodiac they call *sodi-mandalam* or the circle of stars.

7. *Ibid.* 194. *Ast. Ind.*, p.43 & c.

8. *Mem.Acad.Scien.* tom.8, p.312. *Ast.Ind.*, p.11, §14.

9. *Ast.Ind.*, p.7.§ 6.

10. *Mem. Acad. Scien.* tom.8, p.328.

11. *Ast. Ind.*, p.124. The tables of Tirvalore make the year 6″ less.

12. The equation of the sun, or what they call the *chaiaa*, is calculated in the Siamese tables only for every 15° of the *matteiomme*, or mean anomaly. Cassini, *ubisupra*, p.299.

13. *Ast. Ind.*, p.9.

14. The error, however, with respect to the apogee, is less than it appears to be; for the motion of the Indian Zodiac, being nearly 4′ swifter than the stars, is but 6″ slower than the apogee. The velocity of the Indian Zodiac is indeed neither the same with that of the stars, nor of the sun's apogee, but nearly a mean between them.

15. The Indian period is more exact than that of our golden number, by 35′. *Ast. Ind.*, p.5. The Indians regulate their festivals by this period. *Ibid. Disc. Prelim.*, p.viii.

16. *Ast. Ind.*, pp.11 & 20.

17. *Ast. Ind.*, p.13. Cassini *Mem. Acad. Scien.* tom.8, p.304.

18. *Mem. Acad. Scien.* tom.8, pp.302 & 309.

19. *Ast. Ind.*, p.12. It brings us to a meridian 82°, 34′, east of Greenwich. Benares is 83°, 11′, east of the same, by Rennel's map.

20. These tables are published by M. Bailly, *Ast. Ind.*, p.335 & c. See also p.31, & c.

21. *Ast. Ind.*, p.49 & c.

22. They were explained, or rather decyphered by M. Le Gentil in the Memoirs of the Academy of Sciences for 1784, p.482 & c.; for they were not understood by the missionary who sent them to Europe, nor probably by the Brahmins who instructed him. M. Le Gentil thinks that they have the appearance of being copied from inscriptions on stone. The minutes and seconds are ranged in rows under one another, not in vertical columns, and without any title to point out their meaning, or their connection. These tables are published, *Mem. Acad. Scien.* Ibid p.492, and *Ast. Ind.*, p.414.

23. Tirvalore is a small town on the Coromandel coast, about 12 G. miles west of Negapatnam, in Lat. 10°, 44′, and east Long. from Greenwich, 79°, 42′, by Rennel's map. From the observations of the Brahmins,

M. Le Gentil makes its Lat. to be 10°, 42′, 13″. (*Mem. Acad. Scien.* II, p.184) The meridian of Tirvalore nearly touches the west side of Ceylon, and therefore may be supposed to coincide with the first meridian, as laid down by Father Du Champ. There is no reduction of longitude employed in the methods of Tirvalore. 20. These tables are published by M. Bailly, *Ast. Ind.*, p.335 & c. See also p.31, & c.

21. *Ast. Ind.*, p.49 & c.

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24. These are Indian hours, & c.

25. *Mem. Acad. Scien.* II, p.187; *Ast. Ind.*, p.76 & c.

26. The Indian hours are here reduced to European.27. *Mem. Acad. Scien*, Ibid. p.229. *Ast. Ind.*, p.84.

27.*Mem. Acad. des Scien,* ibid.p.229. *Asst.Ind.* p.84.

28. M. Le Gentil has given this table, *Mem. Acad. Scien.*, Ibid. p.261.

29. The accuracy of the geography of the Hindoos, is in no proportion to that of their astronomy, and, therefore, it is impossible that the identity of the meridians of their tables can be fully established. All that can be said, with certainty, is, that the difference between the meridians of the tables of Tirvalore and Siam is, at most, but inconsiderable, and may be only apparent, arising from an error in computing the difference of longitude between these places. The tables of Tirvalore are for Long.

79°, 42′; those of Siam for 82°, 34′; the difference is 2°, 52′, not more than may be ascribed to an error purely geographical.

As to the tables of Chrisnabouram, they contain a reduction, by which it appears, that the place where they are now used is 45′ of a degree east of the meridian for which they were originally constructed. This makes the latter meridian agree tolerably with that of Cape Comorin, which is in Long. 77°, 32′, 30″, and about half a degree west of Chrisnabouram. But this conclusion is uncertain; because, as M. Bailly has remarked, the tables sent from Chrisnabouram, and understood by Fr Du Champ to belong to that place, are not adapted to the latitude of it, but to one considerably greater, as appears from their rule for ascertaining the length of the day.(*Ast. Ind.*, p.33).

The characters, too, by which the Brahmins distinguish their first meridian, are not perfectly consistent with one another. Sometimes it is described as bisecting Ceylon; and at other times, as touching it on the west side, or even as being as far west as Cape Comorin. Lanka, which is said to be a point in it, is understood, by Fr Du Champ, to be Ceylon. M. Bailly thinks that it is the lake Lanka, the source of the Gogra, placed by M. Rennel, as well as the middle of Ceylon, in Long. 80°, 42′; but, from a Hindoo map, in the *Ayeen Akbery*, vol.iii. p.25, Lanka appears to be an island, which marks the intersection of the first meridian of the map, nearly that of Cape Comorin, with the equator; and is probably one of the Maldivy islands. See also a note in the *Ayeen Akbery*, Ibid. p.36.

30. *Mem. Acad. Scien.* 1772 II, p.214. *Ast. Ind.*, p.129.

31. *Mem. Acad. Berlin* 1782, p.387. *Ast. Ind.*, p.144.

32. *Ast. Ind.* p.130.

33. *Ast. Ind.*, p.110. The Brahmins, however, actually suppose the epoch to be 6 hours later, or at sunrise, on the same day. Their mistake is discovered, as has been said, by comparing the radical places in the different tables with one another.

34. *Ast. Ind.*, p.83.

35. *Ast. Ind.*, p.142 & c. The first meridian is supposed to pass through Benares; but even if it be supposed 3° farther west, the difference, which is here 37′, will be only increased to 42′.

36. *Ast. Ind.*, p.114.

37. *Ibid.* p.115.

38. *Ibid.* p.117.

39. *Ibid.* p.118.

40. *Mem. Acad. Scien.* tom.8, p.286.

41. *Ast. Ind.*, p.145.

42. *Ibid.* p.126.

43. The reasoning here referred to is the following: As the mean motions, in all astronomical tables, are determined by the comparison of (*contd...*) observations made at a great distance of time from one another; if x be the number of centuries between the beginning of the present, and the date of the more ancient observations, from which the moon's mean motion in the tables of Chrisnabouram is deduced; and if y denote the same for the more modern observations: then the quantity by which the moon's motion, during the interval $x - y$, falls short of Mayer's, for the same interval, is . $(x^2 - y^2)9''$

If, therefore, m be the motion of the moon for a century in the last mentioned tables, $m(x-y)-9''(x^2-y^2)$ will be the mean motion for the interval $x-y$ in the tables of Chrisnabouram. If, then, a be any other interval, as that of 43.83 centuries, the mean motion assigned to it, in these last tables, by the rule of proportion, will be

$$\frac{ma\,(x-y)-9''a(x^2-y^2)}{x-y}=ma-9a(x+y)$$

Let this motion, actually taken from the tables be = *na*,

then $ma-na=9a(x+y)$ or $x+y=\frac{m-n}{g}=52.19$ in the present case

It is certain, therefore, that whatever supposition be made with respect to the interval between *x* and *y*, their sum must always be the same, and must amount to 5219 years. But that, that interval may be long enough to give the mean motions with exactness, it can scarcely be supposed less than 2000 years; and, in that case, *x = 3609* years, which therefore is its least value. But if 3609 be reckoned back from 1700, it goes up to 1909 years before Christ, nearly, as has been said.

It must be remembered, that what is here investigated is the limit, or the most modern date possible to be assigned to the observations in question. The supposition that *x – y = a*, is the most probable of all, and it gives *x = 4801*, which corresponds to the beginning of the Calyougham.

44. *Mem. Acad. Scien.* 1786, p.235, & c.

45. *Mem. Acad. Scien.* 1786, p.260.

46. *Mem. Acad. Berlin*, 1782, p.170, & c.

47. *Ast. Ind. p.160*, & c.

48. Supra, §18 and 10.

49. *Mem. Acad. Berlin*, 1782. p.289.

50. *Ast. Ind.*, p.160.

51. *Ibid.* p.161.

52. He says, '*Sans doute il ne peut resulter de ce calcul qu'un appercu.*'

53. *Ast. Ind.*, p.163.

54. *Mem. Acad. Berlin* 1782, p.287.

55. *Ast. Ind.*, p.165.

56. *Ast. Ind.*, p.173, & c.

57. *Ibid.* p.177.

58. *Ast. Ind.*, p.194.

59. *Ibid.* p.199 & c.

60. *Ast. Ind.*, p.181.

61. *Ibid.* p.184. §13.62. *Mem. Acad. Berlin* 1782, p.246. *Ast. Ind.*, p.186.

62. *Mem. Acad. Berlin*, 1782. p.246. *Asst. Ind.* p.186.

63. *Ast.Ind.*, p.188.

64. *Esprit des Journeaux* Nov. 1787, p.80.

65. The inequality of the precession of the equinoxes, (§22); the acceleration of the moon; the length of the solar year; the equation of the sun's centre; the obliquity of the ecliptic; the place of Jupiter's *aphelion*; the equation of Saturn's centre; and the inequalities in the mean motion of both these planets.

66. *Ast. Ind.*, p.355 & c.

67. *Mem. Acad. Scien.* II, p.175.

68. To judge of the accuracy of this approximation, suppose *O* to be the obliquity of the ecliptic, and *x* the excess of the semidiurnal arch, on the longest day, above an arch of 90°, then

$$\sin . x = \tan . O \times \tan . \text{lat} .$$

But if G be the height of a gnomon, and S the length of its shadow on the equinoctial day,

$$\frac{S}{G} = \tan . \text{lat and} \sin . x = \tan . O \times \frac{S}{G}.$$ Therefore,

$$x = \tan . O \times \frac{S}{G} + \frac{\tan . O^3 \times S^3}{6 G^3} + \frac{\tan . O^5 \times S^5}{24 G^5} + \&c.$$

or in minutes of time, reckoned after the Indian manner,

$$x = 572.957 \left(\tan . O \times \frac{S}{G} + \tan . O^3 \times \frac{S^3}{6 G^3} + \&c.\right)$$

If , then , and the first term of this formula gives

$$x = 572.957 \times \frac{.4452\, S}{G} = \frac{255\, S}{G}$$

which is the same with the rule of the Brahmins. For that rule, reduced into a formula, is

$$2x = \frac{720\, S}{G}\left(\frac{1}{3} + \frac{4}{15} + \frac{1}{9}\right) = \frac{512\, S}{G}, \text{ or } x = \frac{256\, S}{G}.$$

They have therefore computed the coefficient of $\frac{S}{G}$ with sufficient accuracy; the error produced by the omission of the rest of the terms of the series will not exceed 1′, even at the tropics, but, beyond them, it increases fast, and, in the latitude of 45°, would amount to 8′.

69. *Mem. Acad. Scien.* 1772 II, p.205.

70. *Mem. Acad. Scien.* 1772 II, p.259.

71. *Ibid.* 241.

72. *Hist. Acad.* II, p.109. Ibid. Mem. 253-256.

73. In the language, however, of their rules, we may trace some marks of a fabulous and ignorant age, from which indeed even the astronomy of Europe is not altogether free. The place of the moon's ascending node, is with them *the place of the Dragon* or *the Serpent*; the moon's distance from the node, is literally translated by M. Le Gentil, *la lune offensée du dragon*. Whether it be that we have borrowed these absurdities from India, along with astrology, or if the popular theory of eclipses has, at first, been every where the same, the moon's node is also known with us by the name of the *cauda draconis*. In general, however, the signification of the terms in these rules, so far as we know it, is more rational. In one of them we may remark considerable refinement; *ayanangsam*, which is the name for the reduction made on the sun's longitude, on account of the precession of the equinoxes, is compounded from *ayanam*, a *course*, and *angsam*, an *atom*. *Mem. Acad. Scien.* II. p.251. The equinox is almost the only point not distinguished by a visible object, of which the *course* or motion is computed in this astronomy.

74. *Euc. Lib.* IV, Prop.15.

75. See these tables, *Ast. Ind.*, p.414.

76. The formula deduced from this hypothesis, for calculating the equation of the centre from the anomaly of the eccentric, is the following. Let x be the equation of the centre, ϕ the anomaly of the eccentric, e the eccentricity of the orbit, or the tangent of half the greatest equation;

then $$x = 2e \sin . \phi + \frac{2e^3 \sin . 3\phi}{3} + \frac{2e^5 \sin . 5\phi}{5} + \&c.$$

77. This method of calculation is so nearly exact, that even in the orbit of Mars, the equation calculated from the mean anomaly, rigorously on the principle of his angular motion being uniform, about a point distant from the centre, as described above, will rarely differ a minute from that which is taken out from the Indian tables by this rule. It was remarked, (§37) that it is not easy to explain the rules for finding the argument of the equation of the centre, for the planets. What is said here explains fully one part of that rule, viz. the correction made by half the equation *manda*; the principle on which the other part proceeds, viz. the correction by half the equation *schigram*, is still uncertain.

78. *Almagest. lib.* XI, cap.9 & 10.

79. *Ayeen Akbery*, Vol.III. p.32.

80. *Ast. Ind.* p.307.

81. *Ast. Ind.* p.309, M. Le Gentil, *Mem. Acad. Scien.* 1772. p.II. p.221.

82. It should have been remarked before, that M. Bailly has taken notice of the analogy between the Indian method of calculating the places of the planets, and Ptolemy's hypothesis of the *equant*, though on different principles from those that have been followed here, and such as do not lead to the same conclusion. In treating of the question, whether the sun or earth has been supposed the centre of the planetary motions by the authors of this astronomy, he says, *'Ils semblent avoir reconnu que les deux inegalites (l'equation du centre et la parallaxe de l'orbe annuel) etoient rues de deux centres differens; et dans l'impossibilite ou ils etoient de determiner et le lieu et la distance des deux centres, ils ont imagine de rapporter les deux inegalites aun point qui tint le milieu, c'est-a-dire, a un point egalement eloigne du soliel, et de la terre. Ce nouveau centre resemble assez au centre de I' equant de Ptolemee.' (Ast. Ind. Disc. Prel.* p.69.) The fictitious centre, which M. Bailly compares with the *equant* of Ptolemy, is therefore a point which bisects the distance between the sun and earth, and which, in some respects, is quite different from that *equant*; the fictitious centre, which, in the preceding remarks, is compared with the *equant* of Ptolemy, is a point of which the distance from the earth is bisected by the centre of the orbit, precisely as in the case of that *equant*. M. Bailly draws his conclusion from the use made of half the equation of *schigram*, as well as half the equation *manda*, in order to find the argument of this last equation. The conclusion here is established, by abstracting altogether from the former, and considering the cases of oppositions and conjunctions, when the latter equation only takes place. If, however, the hypothesis of the *equant* shall be found of importance in the explanation of the Indian astronomy, it must be allowed that it was first suggested by M. Bailly, though in a sense very different from what it is understood in here, and from what it was understood in by Ptolemy.

For what further relates to the parts of the astronomy of Chaldea and of Greece, which may be supposed borrowed from that of India, I must refer to the 10th Chap. of the *Astronomie Indienne*, where that subject is treated with great learning and ingenuity. After all the silence of the ancients with respect of Indian astronomy, is not easily accounted for. The first mention that is made of it, is by the Arabian writers; and M. Baille quotes a very singular passage, where Massoudi, and author of the 12th century, says, that Brama composed a book entitled, *Sind-Hind*, that is, *Of the Age of Ages*, from which was composed the book *Maghisti*, and from thence the *Almagest* of Ptolemy. (*Ast. Ind. Disc. Prel.* p.175.)

The fabulous air of this passage is, in some measure, removed, by comparing it with one from Abulfaragius, who says, that, under the celebrated Al Maimon, the 7th Khalif of Babylon, (about the year 813 of our era) the astronomer Habash composed three sets of astronomical tables, one of which was *ad regulas Sind Hind*; that is, as Mr Costard explains it, according to the rules of some Indian treatise of astronomy. (*Asiatic Miscel*...Vol.I. p.34.) The *Sind-Hind* is therefore the name of an astronomical book that existed in India in the time of Habash, and the same, no doubt, which Massoudi says was ascribed to Brama.

III

HINTS CONCERNING THE OBSERVATORY AT BENARES

(By Reuben Burrow (circa 1783). A few names and words are not clearly decipherable in the original. These have been marked with an asterisk. The most likely reading of them is given in this printed version—*Editor.)*

Observations of the ancient monuments have the same relation to history and the arts, that experiments have to natural philosophy; without the last, philosophy is little better than a dream, and exclusive of the former, conjecture is vague and indeterminate.

To establish an intercourse with the learned of different nations, and to unite their collective force in surmounting the difficulties of art, and extending the boundaries of knowledge, were the primary motives of the first institutors of the royal societies of London and Paris; they knew that science would become the easier as its generality increased, and were conscious of the vast advantages that would arise from the auxiliary support of antiquity in the investigation of truth: Convinced of the veracity of this principle, the antiquarians of Europe were at immense expences in collecting medals, and taking the draughts and dimensions of the Greek, Roman, Palmyrean and Egyptian antiquities; and though much greater advantages may be expected from those collections hereafter, when more generally known, yet even the improvements derived from them already in the single article of architecture have more than compensated the expence, and may fully be considered as a national advantage, whether we respect their utility, duration, conveniency or elegance.

Notwithstanding the prejudices of the Europeans of last century in favour of their own abilities, some of the first members of the royal society were sufficiently enlightened to consider the East Indies and China & c., as new worlds of science that yet remained undiscovered. They wrote out lists of queries; furnished new heads of enquiry, and seemed extremely desirous of possessing the literary treasures of these unexplored regions of knowledge of which they had formed such sanguine expectations. They failed in these endeavours; it is true, by employing improper means, but the attempt will ever be a monument of the wisdom and public spirit of the employees; and had they not too hastily concluded that to be lost, which nothing but the prejudices of ignorance and obstinacy, had prevented being found; we might at this time [be] in possession of the most finished productions of Asia, as well as of Europe; the sciences might, in consequence, have been carried to a much higher degree of perfection with us than they are at present; and the elegance and superiority of the Asiatic models might have prevented that neglect and depravity of Geometry, and that inundation of Algebraic barbarism which has ever since the time of Descartes, both vitiated taste, and overrun the publications, of most of the philosophical societies in Europe.

But notwithstanding that the ruins and repositories of Greece and Rome have been ransacked and scrutinised for antiquities, these former prejudices are still in force, and the East Indies are almost entirely neglected; for though the country teems with curiosities of almost every kind, yet excepting the late translation of the Code of Gentoo laws, Europe has received less information from her sons in these matters, than if she had dispatched none to the East but Huns and barbarians; and yet there is a reason to believe that was the 'Parent of the Sciences' (notwithstanding that epithet is usually applied to Egypt): for the Chinese on the one side, and the Babylonians on the other, we know had astronomical observations, and yet Egypt with all her boasted antiquity had none.

In all the Grecian, Roman and Egyptian remains there does not appear to be the least vestige of an observatory: The pyramids are said indeed to have been placed north and south for some astronomical purpose, and we are told that Delhazelles* examined the largest of them about a century ago and found it so; but this I very much doubt; for if he examined one, it must have been great want of curiosity not to examine more; and even if he was capable of making the examination, (which is dubious) neither France nor England could at that time have furnished him with an instrument sufficiently exact; besides, it is not certain, nor even very probable that the builders of the pyramid took any uncommon pains to place the building in the plane of the meridian that seems only designed for a funeral monument: And yet from this single and doubtful observation have philosophers concluded that the earth has not altered its axis! It was not indeed supposed till very lately that there was any practical mode of determining the matter; but fortunately for astronomy there is a large Quadrant existing at Benares which from the intent of its construction must necessarily have been placed in the plane of the meridian when the observatory was erected; and as this Quadrant is an immoveable structure of solid massy stones, and consequently not liable to vary its azimuth, or bend like European quadrants the transits and altitudes of a number of stars may be taken with it, by a proper contrivance; and its position with respect to the meridian and equator & c. found out with the greatest exactness; from whence many useful conclusions may be drawn, and this very curious and difficult affair perhaps determined.

It is well known that the problems of finding the precession of the equinoxes, and the mutation of the earth's axis, have been considered by some of the most learned mathematicians, and yet they are not agreed concerning it: Some great authors as Newton, Simpson, Walmsley and Sylvain Bailly, supposed the action of the sun and moon to bring the equator out of its place, and to make it revolve round the old axis in a different position; while others as d'Alembert, Euler, La Grange and Titius, suppose the result to be a new equator and a new axis. This last seems indeed to be partly the case, for we cannot otherwise account for equatorial productions being found in Russia and Siberia; nor how those of the frozen zone should be found in the torrid: The matter however is still very doubtful, and requires the aid of observations; for in my opinion even those that have treated the subject best, have omitted some parts that are very essential; for some of them have made a wrong estimation of the quantity of the solar force and all of them have assumed the rigidity of the protuberant parts of the earth's equator, in their calculations; which is evidently contrary to fact; because we know that near 5/6th of the whole equator is covered with water; and there are not even signs of shallows any where in it, to speak of, except in the short distance between Madagascar and Sumatra: This must make so great a difference in the result that it scarcely seems possible to determine the matter alone by theory: The fact however is certain, that the best mathematicians differ greatly in their conclusions; but if the earth acquires a new axis the meridians will consequently be changed; and if the Quadrant at Benares was placed in the plane of the meridian when the building was erected, it cannot be in the plane of the meridian now; and therefore if the quantity of its deviation from that plane, be carefully and accurately determined it may answer many useful purposes in astronomy, and likewise be serviceable when the theory is perfect to point out the time when the observatory was built, exclusive of its use in the mutation and precession.

It is also probable that some useful information may be had from the Observatory at Benares, respecting the obliquity of the ecliptic; for though the ancient observations sufficiently point out a diminution, yet these observations are some of them incompatible, and there is a difference with astronomers of more than one fourth part of the whole annual decrease. This I presume may be determined from some fixed sights that are upon one of the instruments, and which perhaps may be directed to some particular star, or remarkable circle in the heavens.

I am likewise informed that the instruments are divided, but have not been told the particulars; if they have sub-divisions and numbers, they may instruct us in the ancient characters; and perhaps the dimensions of the instruments may give us information respecting the antique measures of the Hindoos; indeed every possible observation ought to be made and every particular dimension taken with the utmost accuracy, for it is with experimental observations as with given situations in geometry where the positions of a few points is sufficient to determine a multitude of lines of different species; and as a number of important conclusions may be drawn from a collection of accurate experiences and well attested facts, so every opportunity of making such ought to be embraced and attended to, if it was on no other account but to give an additional value to observations that might be made in future: For it is worthy of remark that knowledge does not increase in proportion to the number of experiments but in a much higher degree; and that a single observation which proves little or nothing when alone may have a very great effect in conjunction with others; thus, for example, a single point in geometry determines nothing; and two, only give the position of a line; yet if a couple of additional points be added; not only six right lines are thereby determined, but also the magnitude and position of four circles and a parabola; and if we add two points more (which singly would only give a line) we shall thereby determine 15 right lines; 20 circles; 15 parabolas; and 6 ellipses or hyperbolas; from where might be drawn an infinity of other conclusions of different kinds; and though the enquiry at first, might only respect some particular case (as right lines for instance in the example before us) yet from the same data all the rest are deducible; and by similar reasoning, observations made at Benares with only an astronomical view, might be applicable to commerce, to history, chronology, and most kinds of subjects.

There seems reason to conjecture that the sciences took their rise in India, and were carried there to a high degree of perfection before they were transplanted in other countries: This transplantation might be more or less partial according to the inclination or abilities of those that came into India for instruction; and by the intermixture of these with their own different tenets, we may perhaps account for that confused jumble of truth and fiction that we meet with in what are called the *placits* of the philosophers. If the Indians knew the theory of comets and had reduced them to calculation, the Chaldeans from thence might have easily learnt that *comets were only planets moving in very eccentric orbits*, without being able either to calculate their places or to find their distance. To tell us that Pythagoras had the same idea, is only an additional confirmation; we know that he went to India to be instructed; but the capacity of the learner determines his degree of proficiency, and if Pythagoras on his return had so little knowledge in geometry as to consider the forty-seventh of Euclid as a great discovery, he certainly was entirely incapable of acquiring the Indian method of calculation, through his deficiency of preparatory knowledge; and therefore could only get such general notions and principles of things as he was capable of understanding; as the system of the universe, the idea of comets, the plurality of worlds and the doctrine of transmigration: this also accounts for the contradictory opinions of ancient authors concerning the invention of the sciences, and whether the Chaldeans were capable or incapable of predicting the returns of comets and foretelling eclipses, as authors dispute; for each teacher, or head of sect that drew his knowledge from the Indian sources, might conceal his instructors to be reckoned an inventor, and the art itself would be estimated according to the capacity or proficiency of the promulgator, or his followers; thus Berosus the Chaldean is considered by Vitruvius as the inventor of concave sun-dials, though probably the invention had come from the Bramins, as there is now a similar instrument at Benares. Another reason why the sciences were perfected in India is the Indians having been much longer civilised than any other nation, and we know that when people are civilised they begin to study the arts. That they have been much longer civilised, is plain from their state at present, for notwithstanding the slowness of its revolution they have evidently gone through almost the whole political circle of legislative degradation; and are nearly arrived to that despicable state of feeble insignificance, which separates the barbarity of a state of nature, from that of a state of society; and which has all the miseries of both, without any of the advantages of the former.

As it is probable that many of the observations made by Indian astronomers are recorded in manuscript which a more general intercourse with the natives may discover, it becomes the more necessary on that account to make a particular examination of the instruments at Benares, even to enable us to use such observations, if they should chance to be found hereafter; this will appear indispensably requisite, when we consider that the Chinese have their measures of a degree different from ours and that 23, 39', 18", of our divisions make just 24 in China. Now it would have been impossible for us to have made use of these observations had not a comparison between the Chinese instruments and ours enabled Father Gaubil to give us the ratio between them; and as the observatory at Benares is probably the only one existing in India, so no opportunity of examination ought to be neglected, lest the instruments should be defaced by accident or barbarism, and observation be thus rendered useless that might perhaps have been accumulating for ages; at least this advantage will arise from it, that we shall know what mode of angular sub-divisions they really did follow, and from thence probably be enabled to determine whether the astronomers of India had any communication with the Chinese or Arabian & c.

In the Newtonian chronology it is supposed that Chiron made a sphere, and formed the constellation into such figures, respecting the argonautic expedition, as we now have upon our globes; as Aries for the golden fleece; Taurus for the brazen footed bull; Gemini for the two Argonauts, Castor and Pollux & c; this chronology is partly founded on a supposition that Chiron's sphere was made for the use of the Argonauts and that the equinoctian coloure* at that time passed through the middle of the constellation Aries. This hypothesis, however, has met with great contradictions, for it is positively asserted that the Hindoos have similar constellations, and figured almost exactly in the same manner as those that are attributed to Chiron. Now either Chiron received his sphere from the Indians and the improbability of the coloures* position whence he received it will render the time of the Argonautic expedition doubtful; or else the Indians had their astronomy from the Greeks and therefore may have some of their other productions; at least it implies a communication, and it is probably that not only the true system of the world but many parts of the Grecian literature might be derived from the Bramins. Indeed there are many reasons to believe that the true system extended over many other nations before it was heard of in Greece, for it would have been useless to have multiplied astronomical observations on a false hypothesis and we know that the Babylonian astronomers had a series of near 2000 years observations at the time of Alexander the Great. As to the orbs and epicycles of Ptolemy they are but of modern date, in comparison with the ancient Pythagorean system; and the ignorance of the later Greeks and Romans is evident from the ridiculous explications of ancient monuments (plainly relating to the true system) given by some of the old mythologists, examples of which mode are seen in Boulanger, Costard and others, and I have lately met with a similar instance in the Imag Deorum* of V. Catori, respecting the copy of an ancient Persian monument, in which Apollo dragging a bullock by the horns, apparently has a relation to the doctrine of mutual attraction; and where the figure of the sun in a circular plain intersecting a cone, evidently points out both the centre of force and the form of the earth's orbit; in the same manner that Bullialdus has done in his treatise on the philosaic astronomy.

It would appear from this explanation that the figure of an ox was a symbol with the Persians to represent the moon; perhaps it may also be the same in India, where we know both the moon and the cows are objects of superstitious veneration. There likewise seems to be a familiarity between the East Indians and the Jews; for the Jews *worshipped a calf; baked cakes to the queen of heaven and blew the trumpet in the new moon*, and there is one of their idolatrous customs mentioned in the 7th chapter of Acts and the 5th chapter of Amos, that has a very evident reference to the Hindoo custom of dragging their wooden...* about; and the Jews are threatened to be carried away 'beyond Babylon' for using it; that is, I suppose the place they got it from; for they could not be carried far beyond Babylon without approaching very near the East Indies: However an examination into the Hindoo monuments might give some light into obscure passages of scripture, and as such infinite pains have been spent upon it as a matter of faith, it might not be amiss to take a little more with it, on the footing of a history.

It is usual to speak slightingly of Indian astronomers, and to affirm that the utmost of their learning consists in foretelling an eclipse: But to calculate an eclipse is no trifling matter even in our astronomy, and if the Bramins have such short and easy modes of computation as to make that business a trifle, to gain their methods is certainly an object worthy of enquiry, and the more so as our modes of calculation are excessively tedious and intricate: It is also reported that the Bramins have rules for computing the returns of places of comets. Now this is a matter astonishingly difficult and so complicated with every principle of mechanics and philosophy, that if they can possibly do it there requires (in my opinion) no other proof of their having formerly carried astronomy to the highest degree of perfection.

It is also generally reported that the Bramins calculate their eclipses, not by astronomical tables as we do, but by rules; now these rules, are either as exact as our methods, or not; if they are not, perhaps they may be some particular modes of applying the Chaldean 'saros' of 223 lunation, or the 'neros'* of 600 years, which may be of use in making a near estimate of the times when eclipses may happen: If they be as exact as ours, or but nearly so, it is a proof that they must have carried algebraic computation to a very extraordinary pitch, and have well understood the doctrine of 'continued fractions', in order to have found those periodical approximations; this I am the more confirmed in because I have heard that the Bramins have different rules for computing eclipses and that those rules are more or less complex according to the requisite degrees of exactness; which entirely agrees with the approximation deduced from algebraic formulae, and implies an intimate acquaintance with the Newtonian doctrine of series. This at first sight may seem improbable, but will appear entirely consistent when we recollect that the Bramins have Arabic treatises among them, and that the Arabs are well known to have carried Algebra to a high degree of perfection: We are even told that they had a complete method of resolving cubic equations, and were likewise possessed of the 13 books of Diophantus, the 7 last are lost; in the 6 that remain he has carried the subject almost as far as we have, and therefore it is not impossible for the Bramins to have understood Algebra better than we do.

I have hitherto supposed the Observatory to be ancient, but most of the aforesaid advantages will obtain, even if it be so modern as the reign of Akbar: There will likewise be a greater probability of meeting with the original observations, and more certainly respecting the manner they were taken; as to the system itself which the modern Bramins may now either follow or pretend to follow, it can have no effect upon the observations, for observations are of no sect or party but that of truth, whether the Observatory be Ptolemaics or Copernicans, and if they should happen to be numerous and to be made with great care, they may be of essential service to modern astronomy whether the earth be supposed moveable or immoveable.

I am far from attributing any superior excellence to the present race of Bramins, especially those of the districts about Calcutta, but I am of opinion that a great deal of knowledge may be found in their books and that some curious and useful matters may be learnt from among themselves: Of the skill and abilities of the ancient Bramins I have not the least doubt, though it is a matter of difficulty how long their successors might have retained that knowledge: I am even of opinion that the intent of the first Indian legislature in the institution of the caste of the Bramins was something similar to that of the late society of the Jesuits, and the *Chaldean Astronomers*, the *Persian Magi*, the *Sooth Sayers of Babylon*, the *wise men of the East* and all the *astrologers, stargazers, and magicians* that the prophets of the Bible seem to be afraid of, and yet affect to ridicule, were nothing more than either the Bramins themselves or some of their disciples that were infected with the rage of governing, and giving advice, and travelled about to every court and kingdom like the Jesuits, making use of their knowledge in the sciences as a recommendation to matters of more importance: It would be too long to enumerate reasons for this opinion from history; I shall therefore only just hint that the sun-dial of Ahaz mentioned in scripture seems to have been made by the Bramins of Hindoostan; for the shadow of a sun-dial made for the latitude of Jerusalem could not possibly have gone back, as that of the dial of Ahaz did, and consequently the dial was made for some place between the tropics, and its style must have also been a gnomon; but we know that a dial made for any particular latitude will also serve for another if it is properly drawn and situated, and as the Jews were too ignorant to place it themselves, some Bramin might have done it (for we know that Ahaz followed almost every particular of the Gentoo worship and also encouraged their customs and arts) and Isaiah of course had taken the opportunity to retail its usual property, as a miracle: That the shadow of a sun-dial made for the latitude of Jerusalem can not possibly go back is evident from this principle, that whenever the latitude of the place and the declination of the sun are of the same name, and the latitude less than the declination; the foot of the gnomon will fall without the convex part of the hyperbola described by the shadow; and consequently a tangent may be drawn from that point to the curve, which shows when the shadow goes back; but that the gnomon fall wholly within conic section in all other cases; and from this principle I discovered in my way to India a method of working azimuths at sea between the tropics that may be done with 1/20th part of the trouble of the usual methods, and gives the variation of the compass much more exact.

From the accounts given in the Bible of idolatries of Ahaz and several other of the Israelitic kings, it seems probable that the Gentoo religion had extended itself over most of the kingdoms between India and the Mediterranean; the Jews were continually running into it and made 'carved and molten images', worshipped in *Groves under green trees* and made their sons and daughters *pass through the fire* in the same manner as the Fakeers and Bramins do at present; in short the worship of fire seems to have been a principal part of the Jewish idolatry as it was then all over India and is now on the coast of Malabar. But whether the making of 'their children pass through the fire' was actually sacrificing them, or not, I can not determine; I think it was; but it is worth enquiry what the customs of the fire worshippers on the coast of Malabar are in that respect, and how far those customs extend, and whether there are yet any remains of them among the priests at Benares, as I think there must.

Our knowledge respecting India is so exceedingly confined that it is impossible to conjecture with any degree of probability how the Bramins retained their superiority in literature; it is said that the Ptolemaic system was introduced by one of their conquerors called Bickerammjeet about —(Blank in original—*Editor*) years ago, and that in consequent of his order, the true system of the world was entirely exploded. But part of this story seems more plausible than true for it does not appear likely that men who were strongly convinced of the truth of a system should so easily discard, without ever resuming it, for another that had no other recommendation but the sanction of imperial stupidity. It is more probable that the ancient system kept its ground long after, in private, though the Bramins might pretend to be obsequious to the mandates of authority in public: This at least, is the case now in the Catholic parts of Europe, for by the Pope's decree, to believe in the Copernican system is heresy, and to profess it publicly, is damnation, and yet it is publicly denied and privately believed by every person of knowledge. How far an increase of ignorance may have been favourable to Ptolemy's system in India can only be known by a more intimate acquaintance with the writings of the Bramins; however as this change of system aforesaid, was not at such a vast distance of time, it is to be hoped that the decrease of true knowledge was but slow, and if so, probably some of their best productions may have escaped the ravages of time, and come down to us without much loss or depravation.

Astronomy is a subject that requires a larger stock of mathematical knowledge than is usually imagined, and therefore on the renewal of learning previous to the building of the Observatory at Benares, supposing it modern, there must have been some proficiency made in the sciences; this proficiency must either have been derived from the works of the ancient Bramins, or else introduced from some other country; if it was derived from the Bramins, their books must be still in existence, and therefore might be procured without much difficulty; if from any other nation, it would be of consequence to know with certainty its situation, because we should not only know where to direct our enquiries but that nation it is reasonable to suppose would have made collection of all the learning of the adjacent and neighbouring countries, and would in particular have procured, and yet might retain, the works of the principal Arabian mathematicians; but the Arabian mathematicians we know were possessed of most of the works of the Greeks (for it is from straggling Arabic manuscripts picked up by chance, that we derive the little we know of Grecian mathematics) and therefore to determine the source of these, will be perhaps to discover those excellent works of Archimedes, Euclid, Diophantus and Apollonius & c. that have been so long lost and deplored by European mathematicians.

But supposing after all that his Observatory (contrary to every rule of probability) was built for ostentation and not for use; that there is nothing in its construction worth remarking; no observations on record to be met with, nor any appearance of utility to be derived either from its situation, its form, or position of the instruments, yet even in that case the expense will not be entirely lost; for a number of observations may be made respecting the geography, meteorology and astronomy & c. of India that will more than compensate the trouble. The surveys of India are known to be remarkably defective, and there is great reason to believe that not a single place in India has had its longitude properly determined except Pondicherry. The latitudes are nearly in the same predicament, and indeed most of the English maps are made up of ideal chains of mountains and imaginary woods, taken piecemeal by pretended surveyors, and put together at random without either longitude or latitude by people who were only solicitous to have a fine drawing, without any regard to exactness or to use; by these means the countries are horribly distorted in their positions and geography is so little benefitted by such maps that they are a nuisance rather than an advantage, and there is no other proper method of correcting such surveys but by determining the positions of some of the most material points by astronomical observations; this would assist in putting the different surveys properly together, and as the longitude of Benares and others that might be deduced from it, would contribute in part to that purpose, a journey thither of course would be so far useful.

The opportunity of making observations of the dip, and variation of the compass might have then utility not only in correcting the surveys, but in discovering the theory of magnetism: that the theory has not yet been discovered is in my opinion owing to a want of observations: It is not easy to know conclusions by induction without a sufficiency of facts, and yet I do not know that in the whole space from India to the frozen ocean, nor from Persia to Kamchatka there has yet been made a single observation, except that at Tobolski by De La Chappe..., and therefore a journey to Benares would also be useful in this matter.

The nature of the refraction and its variation with respect to the heat, moisture and density of the air, would also be a very proper object of enquiry at Benares: The tables made by Cassini, Newton and de La Caille, are all of them different, and with respect to Benares, are adapted to very extreme latitudes: There is also reason to believe that the results at Benares would be very different from any of them and not only elucidate the general principles of refraction, but also be of service in the practice of navigation, especially about the tropics; if any ancient observations should be discovered, the refraction would be absolutely necessary, and even if they should not, it would have its use; for the climates of England and India are different, to depend upon reasoning from analogy only; especially when there are so many causes of variations and so few of them well determined.

If the observer was furnished with a proper instrument, it would also be advisable to find the moon's horizontal parallax in the manner first hinted by Digges and afterwards employed by Maskelyne at St Helena: This would in some respect answer the purpose of measuring a degree of the meridian, especially as the errors might be reduced to very small limits by a repetition of the observations; and this method has an advantage over that of measuring a degree, for it is not liable to be affected by the uncertain attraction of mountains.

With respect to the other observations respecting meteorology, aerometry, astronomy and electricity & c. which a journey to Benares would give an opportunity of making, it would be endless to enumerate the particulars: It is sufficient to observe that they would all be of service to philosophy, and not take any extraordinary time to execute. But if it was thought proper to send a person who was well acquainted with the theory and practice of astronomy & c. with a small collection of good instruments to take the latitudes and longitudes of most of the particular towns and places in the Company's territories and dependencies, he might not only collect materials for making a proper survey of these parts and acquire information respecting the ancient and modern state of the country & c. but would also have an opportunity of making the best collection of astronomical and physical observations that has yet been offered to the public; and if it was thought that umbrage might be taken at such a procedure by the natives, it might easily pass under the notion of measuring degrees of the meridian, or of longitude & c., to avoid suspicion.

IV

ON THE SIXTH SATELLITE OF SATURN

(*From Col. T.D. Pearse to Secretary, Royal Society, London (dated, Madras 22 September 1783).)

The small book, that accompanies this letter, written in the Persian language, is a copy of part of a very large one in the same language, entitled 'The Wonders of the Creation', and it is in fact a kind of general natural history, extracted by the compiler from books of science, and of voyages and travels, performed by the Arabians, who it is well known had, not only a great foreign trade, but extensive settlements in the islands of the East Indies, where yet their manners and religion do still prevail. I beg you to present it to the society in my name.

The book opens with an account of the wonders of the heavens, and the celestial spheres; the system is the Ptolemaic. To each except Mars and Jupiter, figures are annexed and blank spaces were left in the book I used, for the figures of those planets. You will see that, the sun and moon are drawn as amongst us, Mercury is represented as in the act of writing, with paper and pen in his hands, and the inkpot before him; Venus is a woman sitting down, and playing upon a stringed instrument, resembling an Irish harp. And that, which occasions this letter, is the figure of Saturn. By enquiry amongst the learned of these parts, Mars ought to be represented as a warrior, and Jupiter as an old man sitting down, with four girls dancing round him: the book says something contrary to this. I never saw the figure, therefore simply relate what was told me.

The book was written in fifth or sixth century of the Hijera, and that which I borrowed, and from which my copy was taken, is in the possession of Mr Palk, in which the figures are all paintings, but the age of that copy I can not tell, being at a great distance.

It is now time to tell you, why I trouble you with the book: tho I must first inform you that, I had it copied, solely for the sake of the figures of Saturn, and had begun to translate the part that treated of the celestial bodies to send home, with a copy of the original, to the illustrious society, about four years ago: but the difficulty of getting the figure drawn prevented the carrying my design into execution. However in the year 1780, having got what I wanted, I sat down to do my part, but the war with Hyder Allee carried me from home, into the Carnatic; and tho I have had the part that was intended for the society, with me, the whole time, yet I really had not time to translate it, except the small part that ascertain the age of the book, and the account of Saturn; in which there is not, however, any mention of the satellites, or ring or anything else; and the account of his periodic time is erroneous, and plainly relates to the seventh planet, the period of which is about sixty years and which is very seldom seen, and when seen is deemed ominous to the world in general, so says the learned Bramin with whom I talked. The instant I saw the figure it struck me as emblematical of Saturn, and as representing him possessed of what till very lately we were ignorant, I mean his satellites and ring. Hitherto only five satellites have been seen by Europeans; he is here represented as having six, and their names I presume are expressed by the figures held in the hands: the arms show that these bodies are moveable, but can not separate from the planet, and are capable of various motions within certain distances. The seventh holds the crown which is divided into four parts and this I suppose to mean the four concentric parts of the ring. The darkness, under the arm which holds the ring, denotes that the ring does not everywhere touch the body, and that there is a passage between it, and the body of the planet. The legs folded beneath the body I imagine to relate also to the ring and to intimate that, the ring supports the body of the planet, or at least, that the body appears to rest upon, or within it: I conceive that the long beard, and emaciated body denote age, and represent the flowing of his motions.

If it be urged that this explanation can not be put, for that the ancients had not instruments capable of showing them, I answer it is more than we can prove, and if ever a sixth satellite be discovered, it will be a strong argument in favour of the contrary opinion. I am much inclined to believe they had better instruments than we have. I must in this letter aim at brevity, therefore shall only say, that Alhazan wrote on colours, and [catoptricks], and the problem for finding the figures of objects, reflected from convex specula, is called Alhazan to this day. I have not seen Alhazan; if I could get it, I could with the assistance this country would afford me, come at the knowledge of its contents, and perhaps might find telescopes. But if not, it does not seem any argument against there having been such instruments. For we know how early manuscripts are lost and of such books, as those which treat of subjects, in which only the learned, in particular sciences, are concerned, the number of copies will have been few. Even now (when such) number of copies of such books are published, do we not find that many are lost, or only to be found in very extensive libraries? Much more easily then might the same thing disappear, before, when only manuscripts were in use. And when we reflect how few men in any country make use of telescopes, and quadrants and such like instruments, we may easily conceive, that the copies of books treating of such matters would be very few, compared with astronomical tables, which were in greater use, on account of their utility in astrology: and those are scarce, and it is difficult for Europeans to get them.

I shall now address some thing approaching to a proof of there having been telescopes, tho perhaps not like ours. First then, I asked a learned mussulman with whom I had frequent conversations on these subjects, whether they had any mention of such instruments as we use; he said he did not recollect that there were any, except Alhazan, amongst the Arabs, who (ever) that he knew had written on such subjects. Nor do I know added he, that he did describe such instruments, but he treats of the principles on which they depend.

I must now observe, that since Alhazan wrote on colours, and reflection; if not on refractions through prisms and lenses, the not finding any mention of the uses, to which the specular were applied, will certainly not prove that there were no telescopes.

Let us suppose a treatise, on reflection and refraction and the places of figures formed by either, to be written purely scientifically, without any mention of telescopes, or any application of the uses of the theorems. That by some accident, (possibly from the revolutions of time) all other treatises on the subject, or books in which telescopes, and their uses are described, and all telescopes had perished. If such treatise were then to be found, in some very remote period, the finder would not easily discover the use of the theorems, and still less the instruments formed on the principles, therein delivered. Alhazan delivered principles. Artists might possess the application, perhaps not even committed to writing, but learned, as trades are now learnt, by working and practice.

A Bramin with whom, I discoursed, and asked how they made their tables, said that they were formed a long while ago, by means of great pits, dug into the earth, in which the celestial bodies were made visible. But what means they used to see them he did not know. He said he could only use these tables, not form them; that the sun had formerly delivered the tables to a learned Bramin, who had continued above sixty years constantly adoring him, as a reward for his labours. The Bramin agreed, that what he said was allegorical, and simply meant that they were formed by a series of observations, diligently made. So little could I make from these discourses, that instead of gaining lights I seemed rather to lose them; and tho the mussulman thought of Alhazan as I do, (and moreover told me that the observation of the transit of venus, made by our horrox, which I reduced to the Hijera, was not the first; for that mention is made of one a long period before that, in an Arabic book; he quoted the name, which I have forgotten but have in Bengal, amongst my papers) yet the want of actual knowledge of the use of telescopes threw all into doubt. However one day as I was reading an English translation of the Arabian Nights, I met with mention of them as things of very common use, and compared with things as common as apples, and carpets. Three princes went to seek for curiosities, and the fairee Purree Baunoo furnished each, under different shapes, with what he wanted; to one she sold a small carpet for an immense price, not from its curious texture, but its property of transporting him, that sat on it, to the place to which he wished to go; to the second an apple, that would cure disorders by being laid on a sick person; and for the same price, she sold to the third a telescope, that was endowed with the property of showing to him that looked through it, what he wished to see, if he looked through one end; and objects as usual if he looked through the other: and it is described as a small tube of ivory, having a glass at each end.

If then that book were written before telescopes were in use in Europe, and that is ascertainable, then telescopes were things in common use, before we had any ideas of them; and tho they are not described as being such as Dollond has since made, they were telescopes, and amongst those who even now mention telescopes occasionally, how few will describe those exquisite ones, that are applied to astronomical purposes. That useful inventions perish, in time, have we not instances enough. The mummies suffice; tho even in our own days have we not seen Dollond perfect telescopes, by the addition of three object glasses, and are we not in danger of losing them again, from the want of the materials to make one of the kinds of glass used by him? Gun powder is also thought to be, as I may call it, compared with great antiquity, a modern invention; and yet in Gray's Gunnery, there is a quotation from a Greek author, that gives reason enough to suppose, it was applied to guns, even in the time of Alexander.

Much more I could add on this subject, and had written in Bengal, to send you, but in my present situation I can only add, that the loss of any science is not a proof that it never was known, and all I propose, is to present the figure of Saturn as I found it, and to give you my reason for explaining the emblem as I have done: which yet remains to be made out, by some future discovery, of the sixth satellite, the existence of which is not thought to be totally chimerical.

I shall not scruple to inform you of things that may seem wonderful, which come within my own knowledge. I have the prediction of three comets and an earthquake, which I received long before the events. The earthquake did actually happen, and desolated the extensive regions, round Lahore. Unfortunately that paper is in Bengal. Mr Hastings has a copy of it signed by me, with the day marked on the paper, to show when I received it, which was June and I think the earthquake happened in September, or the latter end of August 1779 or 1780. But I send you the copies of the other two predictions, one of which was fully verified at Bath, tho I, being on my march, had not time to look for it, as I certainly should have done, had I been settled.

The Bramin has promised to me a copy of the tables of one hundred and eight comets; and when I return to Bengal, if he is living, I will endeavour to get them. He says they are of different kinds, some have straight tails, some crooked tails, some fan tails some are encircled with a burr, and some are without any. Again some are retrograde, some [direct] and others cross the heavens; I hardly dare to tell you, that the book was, as he says, written in the *jugg* preceding this, and that this began, with what we call the creation.

When we are arrived at some knowledge of the Sanscrit, we may make discoveries of much importance, and either verify the assertions or contradict them. I relate simply what was told to me, I do not take upon me to vouch any thing, but that the man had not any interest in deceiving me; I asked for information, after the manner of a disciple; proposed questions arising from the discourse, and making comparison of what he said, with our system, for further information. He replied, you and the mussulmans differ, from each other and from us; the mussulmans suppose the sun to go round the earth, daily, and annually; but the earth turns round its axis daily, according to your system, and to ours; mussulmans follow Ptolemy, we the ancient books, and you a system of your own, if not derived from ours.

Here I must put an end to a letter, which I fear, will prove tedious, more especially as it concerns matters, which militates with systems, that men do not wish to (spake); and which I relate merely to show some part of the belief, of some of the men of science of the Hindoo tribe, who are not very communicative.

V

A PROOF THAT THE HINDOOS HAD THE BINOMIAL THEOREM

(By Reuben Burrow (Published 1790))

The Islands in the Bay of Bengal are many of them covered with shells and marine productions to a great height, and there are beds of large smooth pebbles near the Herdwar some hundreds of feet above the present level of the Ganges; the sea has therefore gradually been retiring, and consequently the position of the Equator was formerly farther north than it is at present in this part of the earth; and if a few similar observations were made in other countries, it is evident that the ancient situation of the Pole upon the surface of the earth might be determined sufficiently near for explaining many difficulties and paradoxes in geographical antiquities, for this purpose also it would be advisable to have permanent meridian lines drawn in high northern latitudes, to be compared in succeeding ages, and also to have marks cut upon rocks in the sea to show the proper level of the water.

In the aforesaid position of the Equator the sands of Tartary were inhabitable and the Siberian climates temperate; the deserts of the lesser Bukharia were then part of the seat of the Paradise of Moses; and the four sacred rivers of Eden went through India, China, Siberia, and into the Caspian Sea, respectively: this appears from a Bramin map of the world in the Sanscrit language which I met with about two years ago in the higher parts of India, together with a valuable Treatise of Geography upon the system of Boodh; both of which I communicated with my idea on the subject to Mr Wilford, of the Bengal Engineers; and from him the world may expect shortly to be favoured with the first true representation of Scriptural and Hindoo Geography.

From the aforesaid country the Hindoo religion probably spread over the whole earth: there are signs of it in every northern country, and in almost every system of worship: in England it is obvious; Stonehenge is evidently one of the temples of Boodh; and the Arithmetic, the Astronomy, Astrology, the Holidays, Games, names of the Stars and figures of the Constellations; the ancient Monuments, Laws, and even the languages of the different nations have the strongest marks of the same original. The worship of the sun and fire; human and animal sacrifices, & c. have apparently once been universal: the religious ceremonies of the papists seem in many parts to be a mere servile copy of those of the Goseigns and Fakeers; the Christian Ascetics were very little different from their filthy original the Byraggys, & c.; even the hell of the northern nations is not at all like the hell of the scripture, except in some few particulars; but it is so striking a likeness of the hell of the Hindoos that I should not at all be surprised if the story of the soldier that saw it in Saint Patrick's purgatory, described in Matthew Paris's history, should hereafter turn out to be merely a translation from the Sanscrit with the names changed. The different tenets of Popery and Deism have a great similarity to the two doctrines of Brahma and Boodh, and as the Bramins were the authors of the Ptolemaic system, so the Boodhists appear to have been the inventors of the ancient Philolaic or Copernican, as well as of the doctrine of attraction; and probably too the established religion of the Greeks and the Eleusinian mysteries may only be varieties of the two different sects. That the Druids of Britain were Bramins is beyond the least shadow of a doubt; but that they were all murdered and their sciences lost, is out of the bounds of probability; it is much more likely that they turned school-masters and freemasons and fortune tellers, and in this way part of their sciences might easily descend posterity, as we find they have done; an old paper said to have been found by Locke bears a considerable degree of internal evidence both of its own antiquity and of this idea; and on this hypotheses it will be easy to account for many difficult matters that perhaps cannot so clearly be done on any other, and particularly of the great similarity between the Hindoo sciences and ours; a comparison between our oldest scientific writers and those of the Hindoos will set the matter beyond dispute, and fortunately the works of Bede carry us twelve hundred years back, which is near enough to the times of the Druids to give hopes of finding there some of their remains: I should have made the comparison myself but Bede is not an author to be met within this country; however, I compared an Astrolabe in the Nagry character (brought by Dr Mackinnon from Jynagur) with Chaucer's description, and found them to agree most minutely, even the centre pin which Chaucer calls 'the horse' has a horse's head upon it in the instrument; therefore if Chaucer's description should happen to be a translation from *Bede* it will be a strong argument in favour of the hypothesis, for we then could have nothing from the Arabians: what Bungey and Swisset may contain, will also deserve enquiry, and that the comparison may be the readier made, where the books are procurable, I mean very shortly to publish translations of the *Lilavati* and *Beej Ganeta*, or the Arithmetic and Algebra of the Hindoos.

It is much to be feared, however, that many of the best treatises of the Hindoos are lost, and that many of those that remain are imperfect; by the help of a Pundit I translated part of the *Beej Ganeta* near six years ago when no European but myself, I believe, even suspected that the Hindoos had any Algebra, but finding that my copy was imperfect I deferred completing the translation in hopes of procuring the remainder; I have since found a small part more, and have seen many copies, but from the plan of the work (which in my opinion is the best way of judging) they still seem all to be imperfect, though the copier generally takes care to put at the end of them that they are complete. I have the same opinion of the *Lilavati*, and for the same reason; indeed it is obvious that there must have been treatises existing where Algebra was carried much farther; because many of their rules in Astronomy are approximations deduced from infinite series; or at least have every appearance of it; such for instance as finding the sine from the arc, and the contrary; and finding the angles of a right angled triangle from the hypothenuse and sides, independent of tables of sines; and several others of a similar nature much more complicated. I have been informed by one of their Pundits, that some time ago, there were other treatises of Algebra, besides that just mentioned, and much more difficult, though he had not seen them; and therefore, as it is possible they may still be existing, and yet be in danger of perishing very soon, it is much to be wished that people would collect as many of the books of science as possible; (their poetry is in no danger, and particularly those of the doctrine of Boodh which perhaps may be met with towards Tibet. That many of their best books are depraved and lost is evident, because there is not now a single book of geometrical elements to be met with; and yet that they had elements not long ago, and apparently more extensive than those of Euclid is obvious from some of their works of no great antiquity: the same remarks are applicable to their cosmographical remains, in some of which there are indications of an Astronomy superior to that of the *Soorya Siddhant*, and such popular treatises.

Till we can therefore find some of their more superior works, it must be rather from the form and construction of their astronomical tables and rules, and the properties implied in their accidental solutions of questions, & c., that we can judge what they formally knew, than otherwise; that they were acquainted with a differential method similar to Newton's, I shall give many reasons for believing, in a treatise on the principles of the Hindoo Astronomy, which I began more than three years ago, but was prevented from finishing, by a troublesome and laborious employment that for two years gave me no leisure whatever; and which (though the short time I had to spare since has been employed in writing a comment on the works of Newton, and explaining them to a very ingenious native who is translating them into Arabic) I hope ere long to have an opportunity of completing: at present I shall only give an extract of a paper explaining the construction of some tables, which first led me to the idea of their having a differential method; it is part of one out of a number of papers that were written in the latter part of the year 1783, and the beginning of 1784, and of which several copies were taken by different people, and some of them sent to England: this particular extract, was to investigate the rules at pages 253, 254 and 255, of Mons. Gentil's Voyage, of which the author says, '*Je n'ai pu savoir sur quels principes cette table est fondee, & c.*,' and is as follows:

'Now by proceeding in the manner explained in the aforesaid paper to calculate the right ascension and ascensional difference for Tirvalour, and afterwards taking the differences algebraically, and reducing them to *puls* of a *gurry* as in the following table, the principles of the method will be evident. *(Table on the following page)*

'The fifth and sixth columns sufficiently explain the tables in pages 253 and 254 of Mons. Gentil, but there remains a part more difficult, namely, why in calculating the *Bauja*,' or the doubles of the first differences of the ascensional difference '20/60 of the length of the shadow is taken for the first; 4/5 of the first term for the second, and 1/3 of the first term for the third.' 'The primary reason of taking differences here, seems to be that the chords may be nearly equal to the arcs, and that, by adding of the differences, the arcs themselves may be found nearly; the reason will appear from the following investigation. Let N be the equatorial shadow of the Bramins in *bingles*; then 720 the length of the Gnomon, or twelve *ongles*, will be to N the shadow, as radius to the tangent of the latitude; and radius to the tangent of the latitude as the tangent of the declination to the sine of the ascensional difference; consequently 720 is to N as the tangent of declination to the sine of the ascensional difference. Now if the declinations for one, two, and three signs be substituted in the last proportion, we get the sines of the three ascensional differences in terms of N and known quantities; and, if these values be substituted in the Newtonian form for finding the arc from the sine, we get the arcs in parts of the radius; and if each of these be multiplied by 3600 and divided by 6,28318, the values come out in *puls* of a *gurry* if N be in *bingles*, but in parts of a *gurry* if N be in *ongles*; and by taking the doubles we get the values nearly as follows:

'Now because the values in the first column are doubles of the ascensional differences for one, two and three signs, their halves are the ascensional differences in parts of a *gurry*, supposing N to be in *ongles*; and if each of these halves be multiplied by sixty, the products, namely, 9,9168 N; 17,9784 N; and 21,2580 N will be the same in *puls* of a *gurry*; and if to get each of these nearly, in round numbers, the whole be multiplied by three, and afterwards divided by three, the three products will be 29.75 N; 53.94 N, and 63.77 N which are nearly equal to thirty N; fifty-four N, and sixty-four N respectively; and hence the foundation of the Bramin rule is evident, which directs to multiply the equatorial shadow by thirty, fifty-four, and sixty-four, respectively; and to divide the products by three for the Chorardo in *puls*: and these parts answer to one, two, and three signs of longitude from the true Equinox and therefore the *Ayanongsh*, or Bramin precession of the Equinox, must be added to find the intermediate Chorardo by proportion.'

Though the agreement of this investigation with the Bramin results, is no proof that the Hindoos had either the differential method, or Algebra; it gave me at the time a strong suspicion of both; and yet for want of knowing the name that Algebra went by in Sanscrit, it was near two years before I found a treatise on it, and even then I should not have known what to enquire for, if it had not come into my mind to ask how they investigated their rules: of the differential method I have yet met with no regular treatise, but have no doubt whatever that there were such, for the reasons I before hinted at, and I hope others will be more fortunate in their enquiries after it than myself.

With respect to the Binomial Theorem, the application of it to fractional indices will perhaps remain for ever the exclusive property of Newton; but the following question and its solution evidently show that the Hindoos understood it in whole numbers to the full as well as Briggs, and much better than Pascal. Dr Hutton, in a valuable edition of Sherwin's tables, has lately done justice to Briggs; but Mr Witchell, who some years before pointed out Briggs as the undoubted inventor of the differential method, said he had found some indications of the Binomial Theorem in much older authors: the method however by which that great man investigated the powers independent of each other, is exactly the same as that in the following translation from the Sanscrit.

'A Raja's palace had eight doors; now these doors may either be opened by one at a time; or by two at a time; or by three at a time; and so on through the whole, till at last all are opened together: it is required to tell the numbers of times that this can be done?

‘Set down the number of the doors, and proceed in order gradually decreasing by one to unity and then in a contrary order as follows:

8	7	6	5	4	3	2	1
1	2	3	4	5	6	7	8

‘Divide the first number eight by the unit beneath it, and the quotient eight shows the number of times that the doors can be opened by one at a time: multiply this last eight by the next term seven, and divide the product by the two beneath it, and the result twenty-eight is the number of times that two different doors may be opened: multiply the last found twenty-eight by the next figure six, and divide the product by the three beneath it, and the quotient fifty-six, shows the number of times that three different doors may be opened: again this fifty-six multiplied by the next five, and divided by the four beneath it, is seventy, the number of times that four different doors may be opened: in the same manner fifty-six is the number of fives that can be opened: twenty-eight the number of times that six can be opened: eight the number of times that seven can be opened: and lastly, one is the number of times the whole may be opened together, and the sum of all the different times is 255.’

The demonstration is evident to mathematicians; for as the second term’s coefficient in a general equation shows the sum of the roots, therefore in the n power of 1+1 where every root is unity the coefficient shows the different *ones* that can be taken in n things: also because the third term’s coefficient is the sum of the products of all the different twos of the roots, therefore when each root is unity the product of each two roots will be unity, and therefore the number of units or the coefficient itself shows the number of different *twos* that can be taken in n things. Again because the fourth term is the sum of the products of the different threes that can be taken among the roots, therefore when each root is unity, the product of each three will be unity and therefore every unit in the fourth, will show a product of three different roots, and consequently the coefficient itself shows all the different *threes* that can be taken in n things; and so for the rest. I should not have added this, but that I do not know well where to refer to it.

P.S. There is an observation perhaps worth remarking with respect to the change of the Poles; namely, that the small rock oysters are generally all dead within about a foot above high water mark; now possibly naturalists may be able to tell the age of such shells nearly by their appearance, and if so, a pretty good estimate may be formed of the rate of alteration of the level of the sea in such places where they are; for I made some astronomical observations on a rock in the sea near an island about seven miles to the south of the island of Cheduba on the Aracan coast, whose top was eighteen feet above high water mark, and the whole rock covered with those shells fast grown to it, but all of them dead, except those which were a foot above the high water mark of that day, which was February 2, 1788: the shells were evidently altered a little in proportion to their height above the water, but by no means so much as to induce one to believe that the rock had been many years out of it: all the adjacent islands and the coast showed similar appearances, and therefore it was evidently no partial elevation by subterranean fires, or any thing of that sort: this is also apparent from the island of Cheduba itself, in which there is a regular succession of sea beaches and shells more and more decayed to a great height. By a kind of vague estimation from the trees and the coasts and shells, & c. (on which however there is not the least dependence) I supposed that the sea might be subsiding at the rate of about three inches in a year.

VI

HINDU ALGEBRA

(Given as introduction to 'Algebra with Arithmetic and Mensuration, from the Sanscrit of Brahmegupta and Bhascara' by H.T. Colebrooke (Pub 1817). Diacritical marks on Sanskrit words have been removed - *Editor.*)

The history of sciences, if it want the prepossessing attractions of political history and narration of events, is nevertheless not wholly devoid of interest and instruction. A laudable curiosity prompts to inquire the sources of knowledge; and a review of its progress furnishes suggestions tending to promote the same or some kindred study. We would know the people and the names at least of the individuals, to whom we owe particular discoveries and successive steps in the advancement of knowledge. If no more be obtained by the research, still the inquiry has not been wasted, which points aright the gratitude of mankind.

In the history of mathematical science, it has long been a question to whom the invention of Algebraic analysis is due, among what people, in what region, was it devised, by whom was it cultivated and promoted, or by whose labours was it reduced to form and system? And finally, from what quarter did the diffusion of its knowledge proceed? No doubt indeed is entertained of the source from which it was received immediately by modern Europe; though the channel has been a matter of question. We are well assured, that the Arabs were mediately or immediately our instructors in this study. But the Arabs themselves scarcely pretend to the discovery of Algebra. They were not in general inventors but scholars, during the short period of their successful culture of the sciences: and the germ at least of the Algebraic analysis is to be found among the Greeks in an age not precisely determined, but more than probably anterior to the earliest dawn of civilization among the Arabs: and this science in a more advanced state subsisted among the Hindus prior to the earliest disclosure of it by the Arabians to modern Europe.

The object of the present publication is to exhibit the science in the state in which the Hindus possessed it, by an exact version of the most approved treatise on it in the ancient language of India, with one of the earlier treatises (the only extant one) from which it was compiled. The design of this preliminary dissertation is to deduce from these and from the evidence which will be here offered, the degree of advancement to which the science had arrived in a remote age. Observations will be added, tending to a comparison of the Indian, with the Arabian, the Grecian, and the modern Algebra: and the subject will be left to the consideration of the learned, for a conclusion to be drawn by them from the internal, no less than the external proof, on the question who can best vindicate a claim to the merit of having originally invented or first improved the methods of computation and analysis, which are the groundwork of both the simple and abstruser parts of Mathematics; that is, Arithmetic and Algebra: so far at least as the ancient inventions are affected; and also in particular points, where recent discoveries are concerned.

In the actual advanced condition of the analytic art, it is not hoped, that this version of ancient *Sanscrit* treatises on Algebra, Arithmetic, and Mensuration, will add to the resources of the art, and throw new light on mathematical science, in any other respect, than as concerns its history. Yet the remark may not seem inapposite, that had an earlier version of these treatises been completed, had they been translated and given to the public, when the notice of mathematicians was first drawn to the attainments of the Hindus in astronomy and in sciences connected with it, some addition would have been then made to the means and resources of Algebra for the general solution of problems by methods which have been re-invented, or have been perfected, in the last age.

The treatises in question, which occupy the present volume, are the *Vija-Ganita* and *Lilavati* of Bhascara Acharya and the *Ganitadhyaya* and *Cuttacadhyaya* of Brahmegupta. The two first mentioned constitute the preliminary portion of Bhascara’s Course of Astronomy, entitled *Siddhanta-siromani*. The two last are the twelfth and eighteenth chapters of a similar course of astronomy, by Brahmegupta, entitled *Brahma-siddhanta*.

The questions to be first examined in relation to these works are their authenticity and their age. To the consideration of those points we now proceed.

The period when Bhascara, the latest of the authors now named, flourished, and the time when he wrote, are ascertained with unusual precision. He completed his great work, the

Siddhanta-siromani, as he himself informs us in a passage of it,[1] in the year 1072 *Saca*. This information receives corroboration, if any be wanted, from the date of another of his works, the *Carana-cutuhala*, a practical astronomical treatise, the epoch of which is 1105 *Saca*;[2] 33 years subsequent to the completion of the systematic treatise. The date of the *Siddhanta-siromani*, of which the *Vija-Ganita* and *Lilavati* are parts, is fixed then with the utmost exactness, on the most satisfactory grounds, at the middle of the twelfth century of the Christian era, A.D. 1150.[3]

The genuineness of the text is established with no less certainty by numerous commentaries in *Sanscrit*, besides a Persian version of it. Those commentaries comprise a perpetual gloss, in which every passage of the original is noticed and interpreted: and every word of it is repeated and explained. A comparison of them authenticates the text where they agree; and would serve, where they did not, to detect any alterations of it that might have taken place, or variations, if any had crept in, subsequent to the composition of the earliest of them. A careful collation of several commentaries,[4] and of three copies of the original work, has been made; and it will be seen in the notes to the translation how unimportant are the discrepancies.

From comparison and collation, it appears then, that the work of Bhascara, exhibiting the same uniform text, which the modern transcripts of it do, was in the hands of both Mahommedans and Hindus between two and three centuries ago: and, numerous copies of it having been diffused throughout India, at an earlier period, as of a performance held in high estimation, it was the subject of study and habitual reference in countries and places so remote from each other as the north and west of India and the southern peninsula: or, to speak with the utmost precision, *Jambusara* in the west, *Agra* in North *Hindustan*, and *Parthapura, Golagrama, Amaravati*, and *Nandigrama*, in the south.

This, though not marking any extraordinary antiquity, nor approaching to that of the author himself, was a material point to be determined: as there will be in the sequel occasion to show, that modes of analysis, and, in particular, general methods for the solution of indeterminate problems both of the first and second degrees, are taught in the *Vija-Ganita*, and those for the first degree repeated in the *Lilavati*, which were unknown to the mathematicians of the west until invented anew in the last two centuries by algebraists of France and England. It will be also shown, that Bhascara, who himself flourished more than six hundred and fifty years ago, was in this respect a compiler, and took those methods from Indian authors as much more ancient than himself.

That Bhascara's text (meaning the metrical rules and examples, apart from the interspersed gloss) had continued unaltered from the period of the compilation of his work until the age of the commentaries now current, is apparent from the care with which they have noticed its various readings, and the little actual importance of these variations; joined to the consideration, that earlier commentaries, including the author's own explanatory annotations of his text, were extant, and lay before them for consultation and reference. Those earlier commentaries are occasionally cited by name: particularly the *Ganita-caumudi*, which is repeatedly quoted by more than one of the scholiasts.[5]

No doubt then can be reasonably entertained, that we now possess the arithmetic and algebra of Bhascara, as composed and published by him in the middle of the twelfth century of the Christian era. The age of his precursors cannot be determined with equal precision. Let us proceed, however, to examine the evidence, such as we can at present collect, of their antiquity.

Towards the close of his treatise on Algebra,[6] Bhascara informs us, that it is compiled and abridged from the more diffuse works on the same subject, bearing the names of Brahme, (meaning no doubt Brahmegupta) Sridhara and Padmanabha; and in the body of his treatise, he has cited a passage of Sridhara's algebra,[7] and another of Padmanabha's.[8] He repeatedly adverts to preceding writers, and refers to them in general terms, where his commentators understand him to allude to Arya-bhatta, to Brahmegupta, to the latter's scholiast Chaturveda Prithudaca Swami,[9] and to the other writers above mentioned.

Most, if not all, of the treatises, to which he thus alludes, must have been extant, and in the hands of his commentators, when they wrote; as appears from their quotations of them; more especially those of Brahmegupta and Arya-bhatta, who are cited, and particularly the first mentioned, in several instances.[10] A long and diligent research in various parts of India, has, however, failed of recovering any part of the *Padmanabha vija*, (or Algebra of Padmanabha) and of the Algebraic and other works of Arya-bhatta.[11] But the translator has been more fortunate in regard to the works of Sridhara's and Brahmegupta, having in his collection Sridhara's compendium of arithmetic, and a copy, incomplete however, of the text and scholia of Brahmegupta's *Brahma-siddhanta*; comprising among other no less interesting matter, a chapter treating of arithmetic and mensuration; and another, the subject of which is algebra: both of them fortunately complete.[12]

The commentary is a perpetual one; successively quoting at length each verse of the text; proceeding to the interpretation of it, word by word; and subjoining elucidations and remarks: and its colophon, at the close of each chapter, gives the title of the work and name of the author.[13] Now the name, which is there given, Chaturveda Prithudaca Swami, is that of a celebrated scholiast of Brahmegupta, frequently cited as such by the commentators of Bhascara and by other astronomical writers: and the title of the work, *Brahma-siddhanta*, or sometimes *Brahmasphuta-siddhanta*, corresponds, in the shorter form, to the known title of Brahmegupta's treatise in the usual references to it by Bhascara's commentators;[14] and answers, in the longer form, to the designation of it, as indicated in an introductory couplet which is quoted from Brahmegupta by Lacshmidasa, a scholiast of Bhascara.[15]

Remarking this coincidence, the translator proceeded to collate, with the text and commentary, numerous quotations from both, which he found in Bhascara's writings or in those of his expositors. The result confirmed the indication, and established the identity of both text and scholia as Brahmegupta's treatise, and the gloss of Prithudaca. The authenticity of this *Brahma-siddhanta* is further confirmed by numerous quotations in the commentary of Bhattotpala on the *sanhita* of Varahamihira: as the quotations from the *Brahma-siddhanta* in that commentary, (which is the work of an author who flourished eight hundred and fifty years ago) are verified in the copy under consideration. A few instances of both will suffice; and cannot fail to produce conviction.[16]

It is confidently concluded, that the Chapters on Arithmetic and Algebra, fortunately entire in a copy, in many parts imperfect, of Brahmegupta's celebrated work, as here described, are genuine and authentic. It remains to investigate the age of the author.

Mr Davis, who first opened to the public a correct view of the astronomical computations of the Hindus,[17] is of opinion, that Brahmegupta lived in the 7th century of the Christian era.[18] Dr William Hunter, who resided for some time with a British Embassy at *Ujjayani*, and made diligent researches into the remains of Indian science, at that ancient seat of Hindu astronomical knowledge, was there furnished by the learned astronomers whom he consulted, with the ages of the principal ancient authorities. They assigned to Brahmegupta the date of 550 *Saca*; which answers to A.D. 628. The grounds, on which they proceeded, are unfortunately not specified: but, as they gave Bhascara's age correctly, as well as several other dates right, which admit of being verified; it is presumed, that they had grounds, though unexplained, for the information which they communicated.[19]

Mr Bentley, who is little disposed to favour the antiquity of an Indian astronomer, has given his reasons for considering the astronomical system which Brahmegupta teaches, to be between twelve and thirteen hundred years old (1263 years in A.D. 1799).[20] Now, as the system taught by this author is professedly one corrected and adapted by him to conform with the observed positions of the celestial objects when he wrote,[21] the age, when their positions would be conformable with the results of computations made as by him directed, is precisely the age of the author himself: and so far as Mr Bentley's calculations may be considered to approximate to the truth, the date of Brahmegupta's performance is determined with like approach to exactness, within a certain latitude however of uncertainty for allowance to be made on account of the inaccuracy of Hindu observations.

The translator has assigned on former occasions[22] the grounds upon which he sees reason to place the author's age, soon after the period, when the vernal equinox coincided with the beginning of the lunar mansion and zodiacal asterism *Aswini,* where the Hindu ecliptic now commences. He is supported in it by the sentiments of Bhascara and other Indian astronomers, who infer from Brahmegupta's doctrine concerning the solstitial points, of which he does not admit a periodical motion, that he lived when the equinoxes did not, sensibly to him, deviate from the beginning of *Aswini* and middle of *Chitra* on the Hindu sphere.[23] On these grounds it is maintained, that Brahmegupta is rightly placed in the sixth or beginning of the seventh century of the Christian era; as the subjoined calculations will more particularly show.[24] The age when Brahmegupta flourished, seems then, from the concurrence of all these arguments, to be satisfactorily settled as antecedent to the earliest dawn of the culture of sciences among the Arabs; and consequently establishes the fact, that the Hindus were in possession of algebra before it was known to the Arabians.

Brahmegupta's treatise, however, is not the earliest work known to have been written on the same subject by an Indian author. The most eminent scholiast of Bhascara[25] quotes a passage of Arya-bhatta specifying algebra under the designation of *Vija*, and making separate mention of *Cuttaca*, which more particularly intends a problem subservient to the general method of resolution of indeterminate problems of the first degree: he is understood by another of Bhascara's commentators[26] to be at the head of the elder writers, to whom the text then under consideration adverts, as having designated by the name of *Madhyamaharana* the resolution of affected quadratic equations by means of the completion of the square. It is to be presumed, therefore, that the treatise of Arya-bhatta then extant, did extend to quadratic equations in the determinate analysis; and to indeterminate problems of the first degree; if not to those of the second likewise, as most probably it did.

This ancient astronomer and algebraist was anterior to both Varahamihira and Brahmegupta; being repeatedly named by the latter; and the determination of the age when he flourished is particularly interesting, as his astronomical system, though on some points agreeing, essentially disagreed on others, with that which those authors have followed, and which the Hindu astronomers still maintain.[27]

He is considered by the commentators of the *Soorya siddhanta* and *Siromani*,[28] as the earliest of uninspired and mere human writers on the science of astronomy; as having introduced requisite corrections into the system of Parasara, from whom he took the numbers for the planetary mean motions; as having been followed in the tract of emendation, after a sufficient interval to make further correction requisite, by Durgasinha and Mihira; who were again succeeded after a further interval by Brahmegupta, son of Jishnu.[29]

In short, Arya-bhatta was founder of one of the sects of Indian astronomers, as Pulisa, an author likewise anterior to both Varahamihira and Brahmegupta, was of another: which were distinguished by names derived from the discriminative tenets respecting the commencement of planetary motions at sunrise according to the first, but at midnight according to the latter,[30] on the meridian of *Lanca*, at the beginning of the great astronomical cycle. A third sect began the astronomical day, as well as the great period, at noon.

His name accompanied the intimation which the Arab astronomers (under the Abbasside Khalifs, as it would appear) received, that three distinct astronomical systems were current among the Hindus of those days: and it is but slightly corrupted, certainly not at all disguised, in the Arabic representation of it *Arjabahar*, or rather *Arjabhar*.[31] The two other systems were, first, Brahmegupta's *Siddhanta*, which was the one they became best acquainted with, and to which they apply the denomination of the *sind-hind*; and second, that of *Arca* the sun, which they write *Arcand*, a corruption still prevalent in the vulgar *Hindi*.[32]

Arya-bhatta appears to have had more correct notions of the true explanation of celestial phenomena than Brahmegupta himself; who, in a few instances, correcting errors of his predecessor, but oftener deviating from that predecessor's juster views, has been followed by the herd of modern Hindu astronomers, in a system not improved, but deteriorated, since the time of the more ancient author.

Considering the proficiency of Arya-bhatta in astronomical science, and adverting to the fact of his having written upon Algebra, as well as to the circumstance of his being named by numerous writers as the founder of a sect, or author of a system in astronomy, and being quoted at the head of algebraists, when the commentators of extant treatises have occasion to mention early and original[33] writers on this branch of science, it is not necessary to seek further for a mathematician qualified to have been the great improver of the analytic art, and likely to have been the person, by whom it was carried to the pitch to which it is found to have attained among the Hindus, and at which it is observed to be nearly stationary through the long lapse of ages which have since passed: the later additions being few and unessential in the writings of Brahmegupta, of Bhascara, and of Jnyana Raja, though they lived at intervals of centuries from each other.

Arya-bhatta then being the earliest author known to have treated of Algebra among the Hindus, and being likely to be, if not the inventor, the improver, of that analysis, by whom too it was pushed nearly to the whole degree of excellence which it is found to have attained among them; it becomes in an especial manner interesting to investigate any discoverable trace in the absence of better and more direct evidence, which may tend to fix the date of his labours, or to indicate the time which elapsed between him and Brahmegupta, whose age is more accurately determined.[34]

Taking Arya-bhatta, for reasons given in the notes,[35] to have preceded Brahmegupta and Varahamihira by several centuries; and Brahmegupta to have flourished about twelve hundred years ago;[36] and Varahamihira, concerning whose works and age some further notices will be found in a subjoined note,[37] to have lived at the beginning of the sixth century after Christ,[38] it appears probable that this earliest of known Hindu algebraists wrote as far back as the fifth century of the Christian era; and, perhaps, in an earlier age. Hence it is concluded, that he is nearly as ancient as the Grecian algebraist Diophantus, supposed, on the authority of Abulfaraj,[39] to have flourished in the time of the emperor Julian, or about A.D. 360.

Admitting the Hindu and Alexandrian authors to be nearly equally ancient, it must be conceded in favour of the Indian algebraist, that he was more advanced in the science; since he appears to have been in possession of the resolution of equations involving several unknowns, which it is not clear, nor fairly presumable, that Diophantus knew; and a general method for indeterminate problems of at least the first degree, to a knowledge of which the Grecian algebraist had certainly not attained;

though he displays infinite sagacity and ingenuity in particular solutions; and though a certain routine is discernible in them.

A comparison of the Grecian, Hindu, and Arabian algebras, will more distinctly show, which of them had made the greatest progress at the earliest age of each, that can be now traced.

The notation or algorithm of Algebra is so essential to this art, as to deserve the first notice in a review of the Indian method of analysis, and a comparison of it with the Grecian and Arabian algebras. The Hindu algebraists use abbreviations and initials for symbols: they distinguish negative quantities by a dot;[40] but have not any mark, besides the absence of the negative sign, to discriminate a positive quantity. No marks or symbols indicating operations of addition, or multiplication, & c. are employed by them: nor any announcing equality[41] or relative magnitude (greater or less).[42] But a factum is denoted by the initial syllable of a word of that import,[43] subjoined to the terms which compose it, between which a dot is sometimes interposed. A fraction is indicated by placing the divisor under the dividend,[44] but without a line of separation. The two sides, of an equation are ordered in the same manner, one under the other,[45] and, this method of placing terms under each other being likewise practised upon other occasions,[46] the intent is in the instance to be collected from the recital of the steps, of the process in words at length, which always accompanies the algebraic process. The recital is also requisite to ascertain the precise intent of vertical lines interposed between the terms of a geometric progression, but used also upon other occasions to separate and discriminate quantities. The symbols of unknown quantity are not confined to a single one: but extend to ever so great a variety of denominations: and the characters used are initial syllables of the names of colours,[47] excepting the first, which is the initial of *yavat-tavat*, as much as; words of the same import with Bombelli's *tanto*; used by him for the same purpose. Colour therefore means unknown quantity, or the symbol of it: and the same *Sanscrit* word, *varna*, also signifying a literal character, letters are accordingly employed likewise as symbols; either taken from the alphabet;[48] or else initial syllables of words signifying the subjects of the problem; whether of a general nature,[49] or specially the names of geometric lines in algebraic demonstrations of geometric propositions or solution of geometric problems.[50] Symbols too are employed, not only for unknown quantities, of which the value is sought; but for variable quantities of which the value may be arbitrarily put, (*Vij* Ch.6, note on commencement of §153—156) and, especially in demonstrations, for both given and sought quantities. Initials of the terms for square and solid respectively denote those powers; and combined they indicate the higher. These are reckoned not by the sums of the powers; but by their products.[51] An initial syllable is in like manner used to mark a surd root.[52] The terms of a compound quantity are ordered according to the powers; and the absolute number invariably comes last. It also is distinguished by an initial syllable, as a discriminative token of known quantity.[53] Numeral coefficients are employed, inclusive of unity which is always noted, and comprehending fractions;[54] for the numeral divisor is generally so placed, rather than under the symbol of the unknown: and in like manner the negative dot is set over the numeral coefficient: and not over the literal character. The coefficients are placed after the symbol of the unknown quantity.[55] Equations are not ordered so as to put all the quantities positive; nor to give precedence to a positive term in a compound quantity: for the negative terms are retained, and even preferably put in the first place. In stating the two sides of an equation, the general, though not invariable, practice is, at least in the first instance, to repeat every term, which occurs in the one side, on the other: annexing nought for the coefficient, if a term of that particular denomination be there wanting.

If reference be made to the writings of Diophantus, and of the Arabian algebraists, and their early disciples in Europe, it will be found, that the notation, which has been here described, is essentially different from all theirs; much as they vary. Diophantus employs the inverted medial of *elleipsis,** defect or want (opposed to *huparxis*,* substance or abundance)[56] to indicate a negative quantity. He prefixes that mark Ψ to the quantity in question. He calls the unknown, *arithmos*;* representing it by the final *S*,* which he doubles for the plural; while the Arabian algebraists apply the equivalent word for number to the constant or known term; and the *Hindus*, on the other hand, refer the word for numerical character to the coefficient. He denotes the monad, or unit absolute, by μ°; and the linear quantity is called by him *arithmos*; and designated, like the unknown, by the final *sigma*. He marks the further powers by initials of words signifying them: ϑ^{υ}, x^{υ}, $\delta\vartheta^{e}$, δx^{υ}, xx^{υ} & c. for *dynamis*, power (meaning the square); *cubos*, cube; *dynamo-dynamis*, biquadrate, & c. But he reckons the higher by the sums, not the products, of the lower. Thus the sixth power is with him the *cubo-cubos*, which the *Hindus* designate as the quadratecube, (cube of the square, or square of the cube).

The Arabian Algebraists are still more sparing of symbols, or rather entirely destitute of them.[57] They have none, whether arbitrary or abbreviated, either for quantities known or unknown, positive or negative, or for the steps and operations of an algebraic process: but express every thing by words, and phrases, at full length. Their European scholars introduced a few and very few abbreviations of names: c^{o}, c^{e}, c^{u}, for the three first powers; c^{o}, q^{2}, for the first and second unknown quantities; p, m, for plus and minus; and R* for the note of radicality; occur in the first printed work which is that of Paciolo.[58] Leonardo Bonacci of *Pisa*, the earliest scholar of the Arabians,[59] is said by Targioni Tozzetti to have used the small letters of the alphabet to denote quantities.[60] But Leonardo only does so because he represents quantities by straight lines, and designates those lines by letters, in elucidation of his Algebraic solutions of problems.[61]

The Arabians termed the unknown (and they wrought but on one) *shai* thing. It is translated by Leonardo of *Pisa* and his disciples, by the correspondent Latin word *res* and Italian *cosa*; whence *Regola de la Cosa*, and Rule of *Coss*, with *Cossike* practice and *Cossike* number of our older authors,[62] for Algebra or Speculative practice, as Paciolo[63] denominates the analytic art; and *Cossic* number, in writers of a somewhat later date, for the root of an equation.

The *Arabs* termed the square of the unknown *mál*, possession or wealth; translated by the Latin *census* and the Italian *censo*; as terms of the same import: for it is in the acceptation of amount of property or estate[64] that *census* was here used by Leonardo.

The cube was by the Arabs termed *Cab*, a die or cube; and they combined these terms *mal* and *cab* for compound names of the more elevated powers; in the manner of Diophantus by the sums of the powers; and not like the *Hindus* by their products. Such indeed, is their method in the modern elementary works: but it is not clear, that the same mode was observed by their earlier writers; for their Italian scholars denominated the biquadrate and higher powers Relato primo, secundo, tertio, & c.

Positive they call *zaid,* additional; and negative, *nakis,* deficient: and, as before observed, they have no discriminative marks for either of them.

The operation of *restoring* negative quantities, if any there be, to the positive form, which is an essential step with them, is termed *jebr*, or with the article *Aljebr*, the mending or restoration. That of *comparing*, the terms and taking like from like, which is the next material step in the process of resolution, is called by them *mukabalah* comparison. Hence the name of *Tarik aljebr wa almukabala*, 'the method of restoration and comparison', which obtained among the Arabs for this branch of the Analytic art; and hence our name of Algebra, from Leonardo of *Pisa*'s exact version of the Arabic title. *Firistakhrajul majhulat* *ba tarík aljebr wa almukabalah*,[65] De solutione quarundam quæstionum secundum modum *Algebrae* et *Almuchabalae*.[66]

The two steps or operations, which have thus given name to the method of analysis, are precisely what is enjoined without distinctive appellations of them, in the introduction of the arithmetics of Diophantus, where he directs, that, if the quantities be positive on both sides, like are to be taken from like until one species be equal to one species; but, if on either side or on both, any species be negative, the negative species must be added to both sides, so that they become positive on both sides of the equation: after which like are again to be taken from like until one species remain on each side.[67]

The Hindu Algebra, not requiring the terms of the equation to be all exhibited in the form of positive quantity, does not direct the preliminary step of *restoring* negative quantity to the affirmative state: but proceeds at once to the operation of equal subtraction (*samasodhana*) for the difference of like terms which is the process denominated by the Arabian Algebraists comparison (*mukabalah*). On that point, therefore, the Arabian Algebra has more affinity to the Grecian than to the Indian analysis.

As to the progress which the Hindus had made in the analytic art, it will be seen, that they possessed well the arithmetic of surd roots;[68] that they were aware of the infinite quotient resulting from the division of finite quantity by cipher;[69] that they knew the general resolution of equations of the second degree; and had touched upon those of higher denomination; resolving them in the simplest cases, and in those in which the solution happens to be practicable by the method which serves for quadratics;[70] that they had attained a general solution of indeterminate problems of the first degree;[71] that they had arrived at a method for deriving a multitude of solutions of answers to problems of the second degree from a single answer found tentatively;[72] which is as near an approach to a general solution of such problems, as was made until the days of La Grange, who first demonstrated that the problem, on which the solutions of all questions of this nature depend, is always resolvable in whole numbers.[73] The *Hindus* had likewise attempted problems of this higher order by the application of the method which suffices for those of the first degree;[74] with indeed very scanty success, as might be expected.

They not only applied algebra both to astronomy[75] and to geometry;[76] but conversely applied geometry likewise to the demonstration of Algebraic rules.[77] In short, they cultivated Algebra much more, and with greater success, than geometry; as is evident from the comparatively low state of their knowledge in the one,[78] and the high pitch of their attainments in the other: and they cultivated it for the sake of astronomy, as they did this chiefly for astrological purposes. The examples in the earliest algebraic treatise extant (Brahmegupta's) are mostly astronomical: and here the solution of indeterminate problems is sometimes of real and practical use. The instances in the later treatise of Algebra by Bhascara are more various: many of them geometric; but one astronomical; the rest numeral: among which a great number of indeterminate; and of these some, though not the greatest part, resembling the questions which chiefly engage the attention of Diophantus. But the general character of the Diophantine problems and of the Hindu unlimited ones is by no means alike: and several in the style of Diophantine are noticed by Bhascara in his arithmetical, instead of his algebraic, treatise.[79]

To pursue this summary comparison further, Diophantus appears to have been acquainted with the direct resolution of affected quadratic equations; but less familiar with the management of them, he seldom touches on it. Chiefly busied with indeterminate problems of the first degree, he yet seems to have possessed no general rule for their solution. His elementary instructions for the preparation of equations are succinct.[80] His notation, as before observed, scanty and inconvenient. In the whole science, he is very far behind, the Hindu writers: not withstanding the infinite ingenuity, by which he makes up for the want of rule: and although presented to us under the disadvantage or mutilation; if it be, indeed, certain that the text of only six, or at most seven, of thirteen books which his introduction announces, has been preserved.[81] It is sufficiently clear from what does remain, that the lost part could not have exhibited a much higher degree of attainment in the art. It is presumable, that so much as we possess of his work, is a fair specimen of the progress which he and the Greeks before him (for he is hardly to be considered as the inventor, since he seems to treat the art as already known) had made in his time.

The points, in which the Hindu Algebra appears particularly distinguished from the Greek, are, besides a better and more comprehensive algorithm,—*1st*, The management of equations involving more than one unknown term. (This adds to the two classes noticed by the Arabs, namely simple and compound, two, or rather three, other classes of equation) *2nd*, The resolution of equations of a higher order, in which, if they achieved little, they had, at least, the merit of the attempt, and anticipated a modern discovery in the solution of biquadratics. *3rd*, General methods for the solution of indeterminate problems of 1st and 2nd degrees, in which they went far, indeed, beyond Diophantus, and anticipated discoveries of modern Algebraists. *4th*, Application of Algebra to astronomical investigation and geometrical demonstration: in which also they hit upon some matters which have been reinvented in later times.

This brings us to the examination of some of their anticipations of modern discoveries. The reader’s notice will be here drawn to three instances in particular.

The first is the demonstration of the noted proposition of Pythagoras, concerning the square of the base of a rectangular triangle, equal to the squares of the two legs containing a rightangle. The demonstration is given two ways in Bhascara’s Algebra, (*Vija-ganita* § 146). The first of them is the same which is delivered by Wallis in his treatise on angular sections, (Ch.6.) and, as far as appears, then given for the first time.[82]

On the subject of demonstrations, it is to be remarked that the Hindu mathematicians proved propositions both algebraically, and geometrically: as is particularly noticed by Bhascara himself, towards the close of his Algebra, where he gives both modes of proof of a remarkable method for the solution of indeterminate problems, which involve a factum of two unknown quantities. The rule, which he demonstrates, is of great antiquity in Hindu Algebra: being found in the works of his predecessor Brahmegupta, and being there a quotation from a more ancient treatise; for it is injudiciously censured, and a less satisfactory method by unrestricted arbitrary assumption given in its place. Bhascara has retained both.

The next instance, which will be here noticed, is the general solution of indeterminate problems of the first degree. It was first given among moderns by Bachet de Meziriac in 1624.[83] Having shown how the solution of equations of the form $ax\text{-}by = c$ is reduced to $ax\text{-}by = \pm 1$, he proceeds to resolve this equation: and prescribes the same operation on a and b as to find the greatest common divisor. He names the residues c, d, e, f, & c. and the last remainder is necessarily unity: a and b being prime to each other. By retracing the steps from $e \pm 1$ or $f \pm 1$ (according as the number of remainders is even or odd)

$$e \pm 1 = \varepsilon, \frac{\varepsilon d \pm 1}{e} = \delta, \frac{\delta c \mp 1}{d} = \gamma, \frac{\gamma b \pm 1}{c} = \beta, \frac{\beta a \mp 1}{b} = a$$

$$or\ f \pm 1 = \zeta, \frac{\zeta e \mp 1}{f} = \varepsilon, \frac{\varepsilon d \pm 1\delta}{e}, \&c.$$

The last numbers *ß* and ∝ will be the smallest values of x and y. It is observed, that, if a and b be not prime to each other, the equation cannot subsist in whole numbers unless c be divisible by the greatest common measure of a and b.

Here we have precisely the method of the Hindu algebraists, who have not failed, likewise, to make the last cited observation. See *Brahm.* Algebra, section 1 and *Bhasc. Lil.* Ch.12. *Vij.* Ch.2. It is so prominent in the Indian Algebra as to give name to the oldest treatise on it extant; and to constitute a distinct head in the enumeration of the different branches of mathematical knowledge in a passage cited from a still more ancient author. See *Lil.* § 248.

Confining the comparison of Hindu and modern Algebras to conspicuous instances, the next for notice is that of the solution of indeterminate problems of the 2nd degree: for which a general method is given by Brahmegupta, besides rules for subordinate cases: and two general methods (one of them the same with Brahmegupta's) besides special cases subservient however to the universal solution of problems of this nature; and, to obtain whole numbers in all circumstances, a combination of the method for problems of the first degree with that for those of the second, employing them alternately, or, as the Hindu algebraist terms it, proceeding in a circle.

Bhascara's second method (*Vij.* § 80-81) for a solution of the problem on which all indeterminate ones of this degree depend, is exactly the same, which Lord Brouncker devised to answer a question proposed by way of challenge by Fermat in 1657. The thing required was a general rule for finding the innumerable square numbers, which multiplied by a proposed (non-quadrate) number, and then assuming an unit, will make a square. Lord Brouncker's rule, putting n for any given number, r^2 for any square taken at pleasure, and d for difference between n and $r^2(r^2 \sim n)$ was $\frac{4r^2}{d^2} = (\frac{2r}{d} \text{x} \frac{2r}{d})$ the square required. In the Hindu rule, using the same symbols, $\frac{2r}{d}$ is the square root required.[84] But neither Brouncker, nor Wallis, who himself contrived another method, nor Fermat, by whom the question was proposed, but whose mode of solution was never made known by him, (probably because he had not found anything better than Wallis and

Brouncker discovered)[85] nor Frenicle, who treated the subject without, however, adding to what had been done by Wallis and Brouncker,[86] appear to have been aware of the importance of the problem and its universal use: a discovery, which, among the moderns, was reserved for Euler in the middle of the last century. To him, among the moderns, we owe the remark, which the Hindus had made more than a thousand years before,[87] that the problem was requisite to find all the possible solutions of equations of this sort. La Grange takes credit for having further advanced the progress of this branch of the indeterminate analysis, so lately as 1767;[88] and his complete solution of equations of the 2nd degree appeared no earlier than 1769.[89]

It has been pretended, that traces of the art are to be discovered in the writings of the Grecian geometers, and particularly in the five first propositions of Euclid's thirteenth book; whether, as Wallis conjectures, what we there have be the work of Theon or some other ancient scholiast, rather than of Euclid himself: Also examples of analytic investigation in Pappus;[91] and indications of a method somewhat of a like nature with algebra, or at least the effects of it, in the works of Archimedes and Apollonius; though they are supposed to have very studiously concealed this their art of invention.[92]

This proceeds on the ground of considering Analysis and Algebra, as interchangeable terms; and applying to Algebra Euclid's or Theon's definition of Analysis, 'a taking of that as granted, which is sought; and thence by consequences arriving at what is confessedly true.'[93]

Undoubtedly they possessed a geometrical analysis; hints of traces of which exist in the writings of more than one Greek mathematician, and especially in those of Archimedes. But this is very different from the Algebraic Calculus. The resemblance extends, at most, to the method of inversion; which both Hindus and Arabians consider to be entirely distinct from their respective Algebras; and which the former, therefore, join with their arithmetic and mensuration.[94]

In a very general sense, the analytic art, as Hindu writers observe, is merely sagacity exercised; and is independent of symbols, which do not constitute the art. In a more restricted sense, according to them, it is calculation attended with the manifestation of its principles: and, as they further intimate a method aided by devices, among which symbols and literal signs are conspicuous.[95] Defined, as analysis by an illustrious modern mathematician,[96] 'a method of resolving mathematical problems by reducing them to equations,' it assuredly is not to be found in the works of any Grecian writer extant, besides Diophantus.

In his treatise the rudiments of Algebra are clearly contained. He delivers in a succinct manner the Algorithm of affirmative and negative quantities; teaches to form an equation; to transpose the negative terms; and to bring out a final simple equation comprising a single term of each species known and unknown.

Admitting on the ground of the mention of a mathematician of his name, whose works were commented by Hypatia about the beginning of the fifth century;[97] and on the authority of the Arabic annals of an Armenian Christian;[98] which make him contemporary with Julian; that he lived towards the middle of the fourth century of the Christian era; or, to speak with precision, about the year 360;[99] the Greeks will appear to have possessed in the fourth century so much of Algebra, as is to be effected by dexterous application of the resolution of equations of the first degree, and even the second, to limited problems; and to indeterminate also, without, however, having attained a general solution of problems of this latter class.

The Arabs acquired Algebra extending to simple and compound (meaning quadratic) equations; but it was confined, so far as appears, to limited problems of those degrees: and they possessed it so early as the close of the eighth century, or commencement of the ninth. Treatises were at that period written in the Arabic language on the Algebraic Analysis, by two distinguished mathematicians who flourished under the Abbasside Almamun: and the more ancient of the two, Muhammed ben Musa *Al Khuwarezmi*, is recognised among the Arabians as the first who made Algebra known to them. He is the same, who abridged, for the gratification of Almamun, an astronomical work taken from the Indian system in the preceding age, under Almansur. He framed tables likewise, grounded on those of the Hindus; which he professed to correct. And he studied and communicated to his countrymen the Indian compendious method of computation; that is, their arithmetic, and, as is to be inferred, their analytic calculus also.[100]

The Hindus in the fifth century, perhaps earlier,[101] were in possession of Algebra extending to the general solution of both determinate and indeterminate problems of the 1st and 2nd degrees: and subsequently advanced to the special solution of biquadratics wanting the second term; and of cubics in very restricted and easy cases.

Priority seems then decisive in favour of both Greeks and Hindus against any pretensions on the part of the Arabians, who in fact, however, prefer none, as inventors of Algebra. They were avowed borrowers in science: and, by their own unvaried acknowledgement, from the Hindus they learnt the science of numbers. That they also received the Hindu Algebra, is much more probable, than that the same mathematician who studied the Indian arithmetic and taught it to his Arabian brethren, should have hit upon Algebra unaided by any hint or suggestion of the Indian analysis.

The Arabs became acquainted with the Indian astronomy and numerical science, before they had any knowledge of the writings of the Grecian astronomers and mathematicians: and it was not until after more than one century, and nearly two, that they had the benefit of an interpretation of Diophantus, whether version or paraphrase, executed by Muhammed Abulwafa *Al Buzjani*; who added, in a separate form, demonstrations of the propositions contained in Diophantus; and who was likewise author of Commentaries on the Algebraic treatises of the

Khuwarezmite Muhammed ben Musa, and of another Algebraist of less note and later date, Abi Yahya, whose lectures he had personally attended.[102] Any inference to be drawn from their knowledge and study of the *Arithmetics* of Diophantus and their seeming adoption of his preparation of equations in their own Algebra, or at least the close resemblance of both on this point, is of no avail against the direct evidence, with which we are furnished by them, of previous instruction in Algebra and the publication of a treatise on the art, by an author conversant with the Indian science of computation in all its branches.

But the age of the earliest known Hindu writer on Algebra, not being with certainty carried to a period anterior, or even quite equal to that in which Diophantus is on probable grounds placed, the argument of priority, so far as investigation has yet proceeded, is in favour of Grecian invention. The Hindus, however, had certainly made distinguished progress in the science, so early as the century immediately following that in which the Grecian taught the rudiments of it. The Hindus had the benefit of a good arithmetical notation: the Greeks, the disadvantage of a bad one. Nearly allied as algebra is to arithmetic, the invention of the algebraic calculus was more easy and natural where arithmetic was best handled. No such marked identity of the Hindu and Diophantine systems is observed, as to demonstrate communication. They are sufficiently distinct to justify the presumption, that both might be invented independently of each other.

If, however, it be insisted, that a hint or suggestion, the seed of their knowledge, may have reached the Hindu mathematicians immediately from the Greeks of Alexandria, or mediately through those of Bactria, it must at the same time be confessed, that a slender germ grew and fructified rapidly, and soon attained an approved state of maturity in Indian soil.

More will not be here contended for: since it is not impossible, that the hint of the one analysis may have been actually received by the mathematicians of the other nation; nor unlikely, considering the arguments which may be brought for a probable communication on the subject of astrology; and adverting to the intimate connection between this and the pure mathematics, through the medium of astronomy.

The Hindus had undoubtedly made some progress at an early period in the astronomy cultivated by them for the regulation of time. Their calendar, both civil and religious, was governed chiefly, not exclusively, by the moon and sun: and the motions of these luminaries were carefully observed by them: and with such success, that their determination of the moon's synodical revolution, which was what they were principally concerned with, is a much more correct one than the Greeks ever achieved.[103] They had a division of the ecliptic into twenty-seven and twenty-eight parts, suggested evidently by the moon's period in days; and seemingly their own: it was certainly borrowed by the Arabians.[104] Being led to the observation of the fixed stars, they obtained a knowledge of the positions of the most remarkable; and noticed, for religious purposes, and from superstitious notions, the heliacal rising, with other phenomena of a few. The adoration of the sun, of the planets, and of the stars, in common with the worship of the elements, held a principal place in their religious observances, enjoined by the *Vedas*:[105] and they were led consequently by piety to watch the heavenly bodies. They were particularly conversant with the most splendid of the primary planets; the period of Jupiter being introduced by them, in conjunction with those of the sun and moon, into the regulation of their calendar, sacred and civil, in the form of the celebrated cycle of sixty years, common to them and to the Chaldeans, and still retained by them. From that cycle they advanced by progressive stages, as the Chaldeans likewise did, to larger periods; at first by combining that with a number specifically suggested by other, or more correctly determined, revolutions of the heavenly bodies; and afterwards, by merely augmenting the places of figures for greater scope, (preferring this to the more exact method of combining periods of the planets by an algebraic process; which they likewise investigated)[106] until they arrived finally at the unwieldy cycles named *Mahayugas* and *Calpas*. But it was for the sake of astrology, that they pushed their cultivation of astronomy, especially that of the minor planets, to the length alluded to. Now divination, by the relative position of the planets, seems to have been, in part at least, of a foreign growth, and comparatively recent introduction, among the Hindus. The belief in the influence of the planets and stars, upon human affairs, is with them, indeed, remotely ancient; and was a natural consequence of their creed, which made the sun a divine being, and the planets gods. But the notion, that the tendency of that supposed influence, or the manner in which it will be exerted, may be foreseen by man, and the effect to be produced by it foretold, through a knowledge of the position of the planets at a particular moment, is no necessary result of that creed: for it takes from beings believed divine, free-agency in other respects, as in their visible movements.

Whatever may have been the period when the notion first obtained, that foreknowledge of events on earth might be gained by observations of planets and stars, and by astronomical computation; or wherever that fancy took its rise; certain it is, that the Hindus have received and welcomed communications from other nations on topics of astrology; and although they had astrological divinations of their own as early as the days of Parasara and Garga, centuries before the Christian era, there are yet grounds to presume that communications subsequently passed to them on the like subject, either from the Greeks, or from the same common source (perhaps that of the Chaldeans) whence the Greeks derived the grosser superstitions engrafted on their own genuine and ancient astrology, which was meteorological.

This opinion is not now suggested for the first time. Former occasions have been taken of intimating the same sentiment on this point:[107] and it has been strengthened by further consideration of the subject. As the question is closely connected with the topics of this dissertation, reasons for this opinion will be stated in the subjoined note.[108]

Joining this indication to that of the division of the zodiac into twelve signs, represented by the same figures of animals, and named by words of the same import with the zodiacal signs of the Greeks; and taking into consideration the analogy, though not identity, of the Ptolemaic system, or rather that of Hipparchus, and the Indian one of eccentric deferents and epicycles, which in both serve to account for the irregularities of the planets, or at least to compute them, no doubt can be entertained that the Hindus received hints from the astronomical schools of the Greeks.

It must then be admitted to be at least possible, if not probable, in the absence of direct evidence and positive proof, that the imperfect algebra of the Greeks, which had advanced in their hands no further than the solution of equations, involving one unknown term, as it is taught by Diophantus, was made known to the Hindus by their Grecian instructors in improved astronomy. But, by the ingenuity of the Hindu scholars, the hint was rendered fruitful, and the algebraic method was soon ripened from that slender beginning to the advanced state of a well arranged science, as it was taught by Arya-bhatta, and as it is found in treatises compiled by Brahmegupta and Bhascara, both of which versions are here presented to the public.

Note

1. *Goladhyaya*; or lecture on the sphere. c.II.§ 56. *As. Res.* vol. 12. p.214.
2. *As. Res. Ibid.*
3. Though the matter be introductory, the preliminary treatises on arithmetic and algebra may have been added subsequently, as is hinted by one of the commentators of the astronomical part. (*Vartic.*) The order there intimated places them after the computation of planets, but before the treatise on spherics; which contains the date.
4. Note A. (Notes A to O referred to in some of the subsequent footnotes are not reproduced here: *Editor*)
5. For example, by Suryadasa, under *Lilavati*, § 74; and still more frequently by Ranganatha.
6. *Vija-Ganita*, § 218.
7. *Ibid.* § 131.
8. *Ibid.* § 142.
9. *Vija-Ganita* Ch.5. Note of Suryadasa. Also *Vija-Ganita* § 174; and *Lil.* § 246 ad finem.
10. For example, under *Lil.* Ch.11.
11. Note G.
12. Note B.
13. *Vasana-bhashya* by Chaturveda Prithudaca Swami, son of Madhusudana, on the *Brahma-siddhanta*; (or sometimes *Bramhasphuta-siddhanta*).
14. They often quote from the *Brahma-siddhanta* after premising a reference to Brahmegupta.
15. Note C.
16. Note D.
17. *As. Res.* 2. 225.
18. *Ibid.* 9. 242.
19. Note E.
20. *As. Res.* 6. 586.
21. *Supra.*
22. *As. Res.* 9. 329.
23. *Ibid.* 12. p. 215.
24. Note F.
25. Ganesa, a distinguished mathematician and astronomer.
26. Sur. on *Vija-ganita* § 128.
27. Note G.

28. *Nrisinha* on *Sur.* Ganesa pref. to *Grah. lagh.*

29. *As. Res.* 2. 235, 242, and 244; and Note H.

30. Brahmegupta, Ch.11. The names are *Audayaca* from *Udaya* rising; and *Ardharatrica* from *Ardharatri*, midnight. The third school is noticed by Bhattotpala the scholiast of Varahamihira, under the denomination of *Madhyandinas*, as alleging the commencement of the astronomical period at noon: (from *Madhyandina*, mid-day.)

31. The *Sanscrit t,* it is to be remembered, is the character of a peculiar sound often mistaken for *r*, and which the Arabs were likely so to write, rather than with a *te* or with a *tau.* The Hindi *t* is generally written by the English in India with an *r.* Example: *Ber (vata)*, the Indian fig. vulg. Banian tree.

32. See notes I, K, and N.

33. Surya-dasa on *Vija-Ganita*, Ch.5.

34. Note I.

35. (Not indicated in original; probably as in 34: *Editor*)

36. See before and note F.

37. Note K.

38. See before and note E.

39. Pococke's edition and translation, p.89.

40. *Vija-ganita* § 4.

41. The sign of equality was first used by Robert Recorde, because, as he says, no two things can be more equal than a pair of parallels, or *gemowe* lines of one length. *Hutton.*

42. The signs of relative magnitude were first introduced into European algebra by Harriot.

43. *Vija-ganita* § 21.

44. *Lil.* § 33.

45. *Vija-ganita* and *Brahm.* 18, *passim.*

46. *Vija-ganita* § 55.

47. *Vija-ganita* § 17. *Brahm.* c. 18, § 2.

48. *Vija-ganita* Ch.6.

49. *Vija-ganita* § 111.

50. *Vija-ganita* § 146.

51. *Lil.* § 26.

52. *Vija-ganita* § 29.

53. *Vija-ganita* § 17.

54. Stevinus in like manner included fractions in coefficients.

55. Vieta did so likewise.

*Transliterated from the original Greek letters: *Editor.*

56. A word of nearly the same import with the *Sanscrit dhana*, wealth, used by Hindu algebraists for the same signification.

56a. Def. 9. (Reference not legible in text*: Editor*)

57. *As. Res.* 12. 183.

58. Or Pacioli, Paciuolo,—LI, & c. For the name is variously written by Italian authors.

59. See Note L.

60. *Viaggi*, 2nd Edit. vol.2, p.62.

61. Cossali, Origine dell'Algebra, i.

62. Robert Recorde's Whetstone of Witte.

63. Secondo noi detta Pratica Speculativa. *Summa* 8.1.

64. *Census*, quicquid fortunarum quis habet. *Steph. Thes.*

65. *Khulasatulhisab* c. 8. *Calcutta.*

66. *Liber abbaci*, 9.15.3. M.S. in Magliab. Libr.

67. Def. 11.

68. *Brahm.* 18 § 27-29. *Vija-ganita* § 29-52

69. *Lil* § 45. *Vija-ganita* § 15-16 and § 135.

70. *Vija-ganita* § 129. and § 137—138

71. *Brahm.* 18. § 3-18 *Vija-ganita* 53-73. *Lil.* § 248—265.

72. *Brahm.* 18. § 29-49. *Vija-ganita* § 75-99.

73. Mem. of Acad. of Turin: and of Berlin.

74. *Vija-ganita* § 206—207.

75. *Brahm.* 18. passim. *Vija-ganita.*

76. *Vija-ganita* § 117—127. § 146-152.

77. *Vija-ganita* § 212—214.

78. *Brahm.* 12. § 21; corrected however in *Lil.* § 169—170.

79. *Lil.* § 59—61, where it appears, however, that preceding writers had treated the question algebraically. See likewise § 139—146.

80. Def. 11.

81. Note M.

82. (See following page)

82. He designates the sides C.D. Base B. Segments *x*, . Then

$$\left.\begin{array}{l} B : C :: C : \chi \\ B : D :: D : \delta \end{array}\right\} \text{and therefore} \left\{\begin{array}{l} C^2 = B\chi \\ D^2 = B\delta \end{array}\right.$$

Therefore,

The Indian demonstration, with the same symbols, is

$$\left.\begin{array}{l} B : C :: C : \chi \\ B : D :: D : \delta \end{array}\right\} \text{Therefore} \left\{\begin{array}{l} \chi = \dfrac{C^2}{B} \\ \delta = \dfrac{D^2}{B} \end{array}\right.$$

Therefore $B = \chi + \delta = \dfrac{C^2}{B} + \dfrac{D^2}{B}$ and $B^2 = C^2 + D^2$.

83. Problémes plaisans et délectables qui se font par les nombres. 2nd Edit. (1624). La Grange's additions to Euler's Algebra, ij. 382. (Edit. 1807)

84. *Vija-ganita* § 80-81.

85. Wallis, Alg. c. 98.

86. *Ibid.*

87. *Bhascara Vij.* § 173, and § 207. See likewise *Brahm.* Alg. Sec. 7.

88. *Mem. Acad. de Berlin*, vol.24.

89. See French translation of Euler's Algebra, Additions, p.286. And Legendre Theorie des Nombres 1. § 6. No.36.

90. Wallis, Algebra, c. 2.

91. *Ibid.* and Preface.

92. *Ibid.* and Nunéz Algebra 114.

93. Wallis, following Vieta's version, Alg. c. I.

94. *Lil.* 3. 1. § 47. *Khulasat. Hisab*. c. 5.

95. *Vija-ganita* § 110, 174, 215, 224.

96. D'Alembert.

97. Suidas, in voce *Hypatia*.

98. Gregory Abulfaraj. Ex iis etiam {nempe philosophis qui prope tempora Juliani floruerunt} Diophantus, cujus liber, quem Algebram vocant, celebris est, in quem si immiserit se Lector, oceanum hoc in genere reperiet.—*Pococke*.

99. Julian was emperor from 360 to 363. See Note M.

100. Note N.

101. See note I

102. See note N.

103. *As. Res.* 2 and 12.

104. *As. Res.* 9, Essay vi.

105. *As. Res.* 8.

106. Brahmegupta, Algebra.

107. *As. Res.* 12.

108. Note O.

PART II

TECHNOLOGY

VII

OPERATION OF INOCULATION OF THE SMALLPOX AS PERFORMED IN BENGALL

(From Ro. Coult to Dr Oliver Coult in 'An account of the diseases of Bengall' (Calcutta, dated February 10, 1731).)

Here follows one account of the operation of inoculation of the smallpox as performed here in Bengall taken from the concurring accounts of several Bhamans and physicians of this part of India.

The operation of inoculation called by the natives *tikah* has been known in the kingdom of Bengall as near as I can learn, about 150 years and according to the Bhamanian records was first performed by one Dununtary, a physician of Champanager, a small town by the side of the Ganges about half way to Cossimbazar whose memory is now holden in great esteem as being thought the author of this operation, which secret, say they, he had immediately of God in a dream.

Their method of performing this operation is by taking a little of the pus (when the smallpox are come to maturity and are of a good kind) and dipping these in the point of a pretty large sharp needle. Therewith make severall punctures in the hollow under the deltoid muscle or sometimes in the forehead, after which they cover the part with a little paste made of boiled rice.

When they want the operation of the inoculated matter to be quick they give the patient a small bolus made of a little of the pus, and boiled rice immediately after the operation which is repeated the two following days at noon.

The place where the punctures were made commonly festures and comes to a small supporation, and if not the operation has no effect and the person is still liable to have the smallpox but on the contrary if the punctures do supporate and no feaver or eruption insues, then they are no longer subject to the infection.

The punctures blacken and dry up with the other pustules.

The feaver insues later or sooner, according to the age and strength of the person inoculated, but commonly the third or fourth days. They keep the patient under the coolest regimen they can think off before the feaver comes on and frequently use cold bathing.

If the eruption is suppressed they also use frequent cold bathing. At the same time they give warm medicine inwardly, but if they prove of the confluent kind, they use no cold bathing, but (keep) the patient very cooll and give coolling medicine.

I cannot say any thing of the success of this operation or of their method of cure in this disease, but I intend to inform myself perfectly when the time of this distemper returns which is in April and May.

VII

AN ACCOUNT OF THE MANNER OF INOCULATING FOR THE SMALLPOX IN THE EAST INDIES

(By J.Z. Holwell, F.R.S. addressed to the President and Members of the College of Physicians in London. (A.D. 1767))

On perusing lately some tracts upon the subject of inoculation, I determined to put together a few notes relative to the manner of inoculation, practised, time out of mind by *the Bramins of Indostan*; to this I was chiefly instigated, by considering the great benefit that may arise to mankind from a knowledge of this foreign method, which so remarkably tends to support the practice now generally followed with such marvellous success.

By Dr Schultz's account of inoculation, page 65, note (9), it should seem, that the world has been already obliged with a performance of the kind which I have now undertaken, by a Dutch author a friend of Mr Chais; but as this is all I know of that work, it shall not discourage my proceeding with my own, the more specially as that performance is in a foreign language, and may not much benefit my country.

As many years have elapsed, since a theme of this nature has employed my thoughts and attention; I will hope for every favourable indulgence from the candor of that learned and respectable Body, to whose judgment I most readily submit the following history and observations.

It has been lately remarked by a learned and judicious ornament of the College of Physicians, 'That the Art of Medicine has, in several instances, been greatly indebted to accident; and that some of its most valuable improvements have been received from the hands of ignorance and barbarism; a truth, remarkably exemplified in the practice of inoculation of the small pox.' However just *in general* this learned gentleman's remark may be, he will as to his *particular reference*, be surprised to find, that nearly the same salutary method, now so happily pursued in England, (howsoever it has been seemingly blundered upon) has the sanction of remotest antiquity; but indeed with some variations, that will rather illustrate the propriety of the present practice, and promote the obvious very laudable intention, with which that gentleman published his late essay on this interesting subject.

The general state of this distemper in the provinces of Bengall (to which these observations are limited) is such that for five and sometimes six years together, it passes in a manner unnoticed, from the few that are attacked with it; for the complexion of it in these years is generally so benign as to cause very little alarm; and notwithstanding the multitudes that are every year inoculated in the usual season, it adds no malignity to the disease taken in the natural way, nor spreads the infection, as is commonly imagined in Europe. Every seventh year, with scarcely any exception, the smallpox rages epidemically in these provinces, during the months of March, April and May; and sometimes until the annual returning rains, about the middle of June, put a stop to its fury. On these periodical returns (to four of which I have been a witness) the disease proves universally of the most malignant confluent kind from which few either of the natives or Europeans escaped, that took the distemper in the natural way, commonly dying on the first, second, or third day of the eruption; and yet, inoculation in the East, has *natural fears* and *superstitious prejudices* to encounter, as well as in the West. The usual resource of the Europeans is to fly from the settlements, and retire into the country before the return of the smallpox season.

It is singularly worth remarking, that there hardly ever was an instance of a native of the Island of St. Helena, man or woman, that was seized with this distemper in the natural way (when resident in Bengall) who escaped with life; although it is a known fact that the disease never yet got footing upon that Island. Clearly to account for this, is not an easy matter; I will venture, however, a few conjectures on the occasion. These people rarely migrate from the Island before they arrive at years of maturity; the basis of their diet there, from their infancy, is a root called *yam*, of a *skranshee* kind, a term they use to express its acrid, unwholesome qualities, which frequently subjects them to epidemic and dangerous dysenteries and sometimes epidemic putrid sore throats. The blood thus charged, must necessarily constitute a most unlucky habit of body to combat with any acute inflammatory disease whatsoever, but more especially of the kind under consideration (so frequently attended with a high degree of putrefaction) always fatal to these people, even in those seasons when the disease is mild and favourable to others: But indeed it is a general remark, that a St Helenian rarely escapes when seized with the smallpox in whatsoever part of the Globe he happens to reside. The same has been observed of the African Coffries, although I know not what cause to ascribe it to, unless we suppose one similar to that above mentioned, to wit, some fundamental aggravating principle in their chief diet. Be this as it may, that these two portions of the human species seem peculiarly marked as victims to this disease, is a fact indisputable, let the cause be what it will.

Having thus far premised touching the general state of this distemper in the provinces of Bengall, (which I believe is nearly applicable to every other part of the Empire) I will only add a few words respecting the duration of it in Indostan, and then hasten to the principal intention of this short essay.

The learned Doctor Friend in his History of Physic from the time of Galen, has this remarkable passage: 'By the earliest account we have of the smallpox, we find it first appeared in Egypt in the time of Omar, successor to Mahomet; though no doubt, since the Greeks knew nothing of it, the Arabians brought it from their own country; and might derive it originally from some of the more distant regions of the East.' The sagacity of this conclusion, later times and discoveries has fully verified, at the period in which the *Aughtorrah Bhade* scriptures of the Gentoos were promulgated, (according to the Bramins three thousand three hundred and sixty-six years ago) this disease must then have been of some standing, as those scriptures institute a form of divine worship, with *Poojahs* or offerings, to a female divinity, styled by the common people *Gootee ka Tagooran* (the goddess of spots), whose aid and patronage are invoked during the continuance of the smallpox season, also in the measles, and every cutaneous eruption that is in the smallest degree epidemical. Due weight being given to this circumstance, the long duration of the disease in Indostan will manifestly appear; and we may add to the sagacious conjecture just quoted, that not only the Arabians, but the Egyptians also, by their early commerce with India through the Red Sea and Gulf of Mocha, most certainly derived originally the small pox (and probably the measles likewise) from that country, where those diseases have reigned from the earliest known times.

Inoculation is performed in Indostan by a particular tribe of Bramins, who are delegated annually for this service from the different Colleges of Bindoobund, Eleabas, Benares, & c. over all the distant provinces; dividing themselves into small parties, of three or four each, they plan their travelling circuits in such wise as to arrive at the places of their respective destination some weeks before the usual return of the disease; they arrive commonly in the Bengall provinces early in February, although they some years do not begin to inoculate before March, deferring it until they consider the state of the season, and acquire information of the state of the distemper.

The year in Bengall can properly be divided into three seasons only, of four months each; from the middle of June to the middle of October is the rainy season; from the middle of October to the middle of February is the cold season, which never rises to a degree of freezing; the whole globe does not yield a more desirable or delightful climate than Bengall during these four months, but the freedom of living, which the Europeans fall into at this season, sow the seeds of those diseases which spring up in all the succeeding months of the year. From the middle of February to the middle of June is the hot, windy, dry season; during which no rain falls but what comes in storms of fierce winds and tremendous thunder and lightning, called North Westers, the quarter they always rise from; and the provinces, particularly Bengall, is more or less healthy, in proportion to the number of these storms; when in this season the air is frequently agitated and refreshed with these North Westers, accompanied with rain, (for they are often dry) and the inhabitants do not expose themselves to the intense sun and violent hot winds that blow in March, April and May, it is generally found to be the most healthy of the year; otherwise (as in the year 1744, when we had no rain from the twentieth of October to the twentieth of June) this season produces high inflammatory disorders of the liver, breast, pleura, and intestines, with dysenteries, and a deplorable species of the smallpox.

From the middle of July (the second month of the rainy season) there is little or no wind, a stagnation of air follows, and during the remainder of this month, and the months of August and September, the atmosphere is loaded with suffocating heat and moisture, the parents of putrefaction; and nervous putrid fevers (approaching sometimes to pestilential) take the lead, and mark the dangerous season; from these fevers the natives frequently recover, but the Europeans seldom, especially if they in the preceding May and June indulged too freely in those two bewitching delicacies, Mangoes and Mango Fish, indiscriminately with the free use of flesh and wine; for these (all together) load the whole habit with impurities, and never fail of yielding death a plentiful harvest, in the three last months of this putrid season: If any are seized with the smallpox in these months, it is ever of the most malignant kind, and usually fatal. It will not, I hope, be deemed a useless digression, if I bestow a few remarks on the nature of this Bengall fever.

A day or two before the seizure, the patient finds his appetite fall off, feels an unaccountable lassitude, and failure in the natural moisture of the mouth, is low spirited without any apparent cause, and cannot sleep as usual; but having no acute complaint whatsoever, nor preternatural heat, that should indicate a fever, he attributes the whole to the heat of the season, is satisfied with fasting and confinement to his house, or goes abroad amongst his friends to ‘shake it off’, as the common phrase is; but on the third day, finding every one of these symptoms increase, he begins to think something is really the matter with him, and the physician is called in: thus the only period is lost wherein art might be of any use; for in the course of eighteen years practice I never knew an instance of recovery from this genuine fever, where the first three days had elapsed without assistance and the patient in this case died on the fifth or seventh day. In some, this fever is attended with a full equal, undisturbed pulse, but obviously greatly *oppressed*; in others with a low and *depressed* one, but equal and undisturbed also, and yet both required the same treatment. Newcomers in the profession, have been often fatally misled by the full pulse, which they thought indicated the loss of blood; they followed the suggestion, the pulse suddenly fell, and when that happens from this cause, the art of man can never raise it again, the patient dies on the fifth or seventh day; and the consequence was exactly the same, if nature, being overloaded, attempted to free herself of part of the burden by a natural haemorrhage, or by the intestines, on the second or third day, (which I have often seen) they proved equally fatal as the lancet. Until the close of the sixth day the skin and urine preserved a natural state; but if at this period of the fever the skin suddenly acquired an intense heat, and the urine grew crude and limpid, it was a sure presage of death on the seventh. The natural crisis of this fever, when attacked in the very beginning, and treated judiciously, was regularly on the eleventh day, and appeared in a multitude of small boils, chiefly upon the head or in small watery bladders thrown out upon the surface of the skin, but in the greatest abundance on the breast, neck, throat, and forehead; both of these critical appearances are constantly preceded, on the tenth day, by a copious sediment and separation in the urine. If by any inadvertent exposure to the cold air, these critical eruptions were struck in, the repelled matter instantly fell upon the brain, and convulsions, and death followed in a few hours, and small purple spots remained in the places of the eruptions. Such is the *genuine putrid nervous fever of Bengall*, which never gave way properly to any treatment but that of blisters applied universally, supported by the strongest alexipharmics; sometimes I have seen the crisis (by unskilful management) spun out to the twenty-first day, but it has been ever imperfect, and the patient is harassed with intermittents or diarrhoeas, and commonly dies in the beginning of the cold season; but if he is of a strong constitution, he lingers on, in a dying way, until the month of February, which usually gives some turn in his favour, but his health is hardly ever re-established before the salutary *mango season*, which fruit, eaten with *milk*, proves an effectual and never-failing restorative. But to resume our subject.

The inhabitants of Bengall, knowing the usual time when the inoculating Bramins annually return, observe strictly the regimen enjoined, whether they determine to be inoculated or not; this preparation consists only in abstaining for a month from fish, milk, and ghee (a kind of butter made generally of buffalo's milk); the prohibition of fish respects only the native Portuguese and Mahomedans, who abound in every province of the empire.

When the Bramins begin to inoculate, they pass from house to house and operate at the door, refusing to inoculate any who have not, on a strict scrutiny, duly observed the preparatory course enjoined them. It is no uncommon thing for them to ask the parents how many pocks they choose their children should have: Vanity, we should think, urged a question on a matter seemingly so uncertain in the issue; but true it is, that they hardly ever exceed, or are deficient, in the number required.

They inoculate indifferently on any part, but if left to their choice, they prefer the outside of the arm, midway between the wrist and the elbow, for the males; and the same between the elbow and the shoulder for the females. Previous to the operation the Operator takes a piece of cloth in his hand, (which becomes his perquisite if the family is opulent) and with it gives a dry friction upon the part intended for inoculation, for the space of eight or ten minutes, then with a small instrument he wounds, by many slight touches, about the compass of a silver groat,[1] just making the smallest appearance of blood, then opening a linen double rag (which he always keeps in a cloth round his waist) takes from thence a small pledget of cotton charged with the variolous matter, which he moistens with two or three drops of the *Ganges* Water, an applies it to the wound, fixing it on with a slight bandage, and ordering it to remain on for six hours without being moved, then the bandage to be taken off, and the pledget to remain until it falls off itself; sometimes (but rarely) he squeezes a drop from the pledget, upon the part, before he applies it; from the time he begins the dry friction, to tying the knot of the bandage, he never ceases reciting some portions of the worship appointed, by the *Aughtorrah Bhade*, to be paid to the female divinity before mentioned, nor quits the most solemn countenance all the while. The cotton, which he preserves in a double callico rag, is saturated with matter from the inoculated pustules of the preceding year, for they never inoculate with fresh matter, nor with matter from the disease caught in the natural way, however distinct and mild the species. He then proceeds to give instructions for the treatment of the patient through the course of the process, which are most religiously observed; these are as follows:

He extends the prohibition of fish, milk and ghee, for one month from the day of inoculation; early on the morning succeeding the operation, four collans (an earthen pot containing about two gallons) of cold water are ordered to be thrown over the patient, from the head downwards, and to be repeated every morning and evening until the fever comes on, (which usually is about the close of the sixth day from the inoculation) then to desist until the appearance of the eruptions, (which commonly happens at the close of the third complete day from the commencement of the fever) and then to pursue the cold bathing as before, through the course of the disease, and until the scabs of the pustules drop off. They are ordered to open all the pustules with a fine sharp pointed thorn, as soon as they begin to change their colour, and whilst the matter continues in a fluid state. Confinement to the house is absolutely forbid, and the inoculated are ordered to be exposed to every air that blows; and the utmost indulgence they are allowed when the fever comes on, is to be laid on a mat at the door; but, in fact, the eruptive fever is generally so inconsiderable and trifling, as very seldom to require this indulgence. Their regimen is ordered to consist of all the refrigerating things the climate and season produces, as plantains, sugar-canes, water melons, rice, gruel made of white poppy-seeds, and cold water, or thin rice gruel for their ordinary drink. These instructions being given, and an injunction laid on the patients to make a thanksgiving *Poojah*, or offering, to the goddess on their recovery, the Operator takes his fee, which from the poor is a *pund of cowries*, equal to about a penny sterling, and goes on to another door, down one side of the street and up on the other, and is thus employed from morning until night, inoculating sometimes eight or ten in a house. The regimen they order, when they are called to attend the disease taken in the natural way, is uniformly the same. There usually begins to be a discharge from the scarification a day before the eruption, which continues through the disease, and sometimes after the scabs of the pock fall off, and a few pustules generally appear round the edge of the wound; when these two circumstances appear only, without a single eruption on any other part of the body, the patient is deemed as secure from future infection, as if the eruption had been general.

When the before recited treatment of the inoculated is strictly followed, it is next to a miracle to hear, that one in a million fails of receiving the infection, or of one that miscarries under it; of the multitudes I have seen inoculated in that country, the number of pustules have been seldom less than fifty, and hardly ever exceeded two hundred. Since, therefore, this practice of the East has been followed without variation, and with uniform success from the remotest known times, it is but justice to conclude, it must have been originally founded on the basis of rational principles and experiment.

Although I was very early prejudiced in preference of the cool regimen and free admission of air, in the treatment of this disease, yet, on my arrival in Bengall, I thought the practice of the Bramins carried *both* to a bold, rash, and dangerous extreme; but a few years experience gave me full conviction of the propriety of their method; this influenced my practice, and the success was adequate; and I will venture to say, that every gentleman in the profession who did not adopt the same mode, (making a necessary distinction and allowance between the constitutions of the natives and Europeans) have lost many a patient, which might otherwise have been saved; as I could prove in many instances, where I have been called in too late to be of any assistance. But to form a judgment of the propriety of this eastern practice with more precision, it will be best to analyse it, from the period of the enjoined preparation, to the end of the process; as thereby an opportunity presents itself of displaying the principles on which the Bramins act, and by which they justify their singular method of practice.

It has been already said, that the preparative course consists only in abstaining from fish, milk and ghee; respecting the first, it is known to be a viscid and inflammatory diet, tending to foul and obstruct the cutaneous glands and excretory ducts, and to create in the stomach and first passages a tough, slimy phlegm, highly injurious to the human constitution; as these are the generally supposed qualities of this diet, it seems forbidden upon the justest grounds.

Touching milk, which is the basis (next to rice) of all the natives food, I confess I was surprised to find it one of the forbidden articles, until I was made acquainted with their reasoning on the subject. They say that milk becomes highly nutritious, not only from its natural qualities, but principally from its ready admission into the blood, and quick assimilation with it; and that it consequently is a warm heating diet, and must have a remote tendency to inflammation, whenever the blood is thrown into any preternatural ferment, and therefore, that milk is a food highly improper, at a season when the preternatural fermentation that produces the smallpox ought to be feared, and guarded against by every person who knows himself liable to the disease, or determined to prepare himself for receiving it, either from nature or art. Upon this principle and reasoning it is, that their women, during the course of their periodical visitations, are strictly forbid, and religiously abstain from, the use of milk, lest it should, upon any accidental cold, dispose the uterus to inflammation and ulceration; and from the same apprehension, the use of it is as strictly prohibited during the flow of the lochia, and is avoided as so much poison; our European women, resident in India, have adopted the same precaution from experience of the effect, and will not, on any consideration, at those times, mix the smallest quantity with their tea, a lesson they derive from their midwives, who are all natives, and generally are instructed in their calling by the Bramins, and other practitioners in physic.

Concerning the third interdicted article, they allege, that under *that* is implied a prohibition of all fat and oily substances, as their qualities are nearly similar with those of fish, and similar in their effects of fouling the first passages in a high degree above any other ailment that is taken into them; that they soon acquire an acrimony in the course of digestion, and convey the same into the blood and juices; these premises being granted, which I think can hardly be denied, there appears sufficient cause for prohibiting the use of the whole tribe; the more especially, as ghee and oil are the essential ingredients used in cooking their vegetable diet.

Thus far the system of practice pursued by the Bramins will, I imagine, appear rational enough, and well founded; but they have other reasons for particularly prohibiting the use of these three articles, which to some may appear purely speculative, if not chimerical. They lay it down as a *principle*, that the *immediate* (or instant) cause of the smallpox exists in the mortal part of every human and *animal* form;[2] that the *mediate* (or second) *acting* cause, which stirs up the *first*, and throws it into a state of fermentation, is multitudes of *imperceptible animalculae* floating in the atmosphere; that these are the cause of all epidemical diseases, but more particularly of the small pox; that they return at particular seasons in greater or lesser numbers; that these bodies, imperceptible as they are to the human organs of vision, imprison the most malignant tribes of the *fallen angelic spirits*: That these animalculae touch and adhere to every thing, in greater or lesser proportions, according to the nature of the surfaces which they encounter; that they pass and repass in and out of the bodies of all animals in the act of respiration, without injury to themselves, or the bodies they pass through; that such is not the case with those that are taken in with the food, which, by mastication, and the digestive faculties of the stomach and intestines, are crushed and assimilated with the chyle, and conveyed into the blood, where, in a certain time, their malignant juices excite a fermentation peculiar to the *immediate* (or *instant*) cause, which ends in an eruption on the skin. That they adhere more closely, and in greater numbers, to glutinous, fat, and oily substances, by which they are in a manner taken prisoners; that *fish, milk*, and *ghee*, have these qualities in a more eminent and dangerous degree, and attach the animalculae, and convey them in greater quantities into the blood, and for these reasons, added to those before assigned, they are forbid to be taken in food during the preparative course. They add, that the small pox is more or less epidemical, more mild or malignant, in proportion as the air is charged with these animalculae, and the quantity of them received with the food. That though we all receive, with our ailment, a portion of them, yet it is not always sufficient in quantity to raise this peculiar ferment, and yet may be equal to setting the seeds of other diseases in motion; hence the reason why any epidemical disorder seldom appears alone. That when once this *peculiar* ferment, which produces the smallpox, is raised in the blood, the *immediate (instant) cause* of the disease is totally expelled in the eruptions, or by other channels; and hence it is, that the blood is not susceptible of a second fermentation of the same kind. That inoculating for this disease was originally hinted by the *divinity* presiding over the *immediate (instant) cause*, the thought being much above the reach of human wisdom and foresight. That the great and obvious benefit accruing from it, consists in this, that the fermentation being excited by the action of a small portion of matter (similar to the *immediate* cause) which *had already passed through* a state of fermentation, the effects must be moderate and benign; whereas the fermentation raised by the malignant juices of the animalculae received into the blood with the ailment, gives necessarily additional force and strength to the first efficient cause of the disease.

That noxious animalculae, floating in the atmosphere, are the cause of all pestilential, and other epidemical disorders, is a doctrine the Bramins are not singular in; however, some of the conclusions drawn from it, are purely their own. A speculative genius may amuse itself by assigning this or that efficient cause, or first principle of this disease; but the best conjecture which the wisdom of man can frame, will appear vague and uncertain; nor is it of much moment, in the present case, to puzzle the imagination, by a minute enquiry into the essence of a cause hidden from us, when the effects are so visible, and chiefly call for our regard: but if we must assign *a cause*, why every part of the globe, *at particular seasons*, is more liable to peculiar malignant epidemical diseases, than *at others*, (which experience manifests) I see no one that so much wears the complexion of probability, as that of pestilent animalculae, driven by stated winds, or generated on the spot by water and air in a state of stagnation, (and consequently in a state of putrefaction favourable to their propagation) and received into the habit with our food and respiration. We yearly see, in a greater or lesser degree, the baneful effects of these insects in blights, although at their first seizure of a plant they are invisible, even with the assistance of the best glasses; and I hope I shall not be thought to refine too much on the argument, if I give it as my opinion, that epidemical blights, and epidemical diseases of one kind or other, may be observed to go often hand in hand with each other, from the same identical cause. But to proceed in our analysis.

The mode by which the Eastern inoculators convey the variolous taint into the blood, has nothing uncommon in it, unless we except the preceding friction upon the part intended for inoculation, and moistening the saturated pledget, before the application of it; for this practice they allege the following reasons; that by *friction* the circulation in the small sanguinary vessels is accelerated, and the matter being diluted by a small portion of *Ganges* Water, is, from both causes, more readily and eagerly received, and the operation at the same time sanctified. The friction and dilution of the matter, has certainly the sanction of very good common sense; and the *Ganges* Water, I doubt not, may have as much efficacy as any other *holy water* whatsoever. This last circumstance, however, keeps up the piety and solemnity with which the operation is conducted from the beginning to the end of it; it tends also to give confidence to the patient, and so far is very laudable. The reasons they assign for giving the preference to matter of the *preceding* year, are singular and judicious; they urge, it is more certain in its effects; that necessity first pointed out the fact, (the variolous matter some years not being procurable) and experience confirmed it: they add, that when the matter is effectually secured from the air, it undergoes at the return of the season an *imperceptible fermentation*, which gives fresh vigour to its action. It is no uncommon thing to inoculate with matter four or five years old, but they generally prefer that of a year old, conceiving that the fermentation which constitutes its superiority over fresh matter, is yearly lessened, and consequently the essential spirit of action weakened, after the first year.

The next article of the Eastern practice, which offers in the course of our discussion, is their sluicing their patients over head and ears, morning and evening, with cold water, until the fever comes on; in which the inoculating Bramins are, beyond controversy, singular: but before we can penetrate the grounds and reasons for this practice, it becomes necessary to bestow a few words on the usual manner of cold bathing in the East, when medically applied, which is simply this; the water is taken up over night, in three, four, or five vessels, before described, (according to the strength of the patient) and left in the open air, to receive the dews of the night, which gives it an intense coldness; then in the morning, before the sun rises, the water is poured without intermission, by two servants, over the body, from the distance of six or twelve inches above the head. This mode of cold bathing has been adopted from the Eastern professors of physic, by all the European practitioners, and by constant experience found abundantly more efficacious than that by immersion, in all cases where that very capital remedy was indicated; notwithstanding it has been ever the received opinion, that the success of cold bathing, is as much, or rather more, owing to the weight and pressure of the circumambient body of water, than *the shock*. The remarkable superior efficacy of this Eastern method of cold bathing, can only be accounted for, from *the shock* being infinitely greater, and of longer continuance, than that received by immersion; which is a fact indisputable, as will be acknowledged by every one who goes through a course of both methods; the severity of the one being nothing comparable to the other: this I assert from my own personal feelings; and I never had a patient that did not aver the same, who had undergone both trials: indeed, the shock of this Eastern method is so great, that, in many cases, when the subject was deeply exhausted and relaxed, I found it absolutely necessary to begin the course only with a *quart* of water.

If the known effects of cold bathing are attended to, and its sovereign virtues duly considered, in the very different circumstances of palsies, rheumatism, general relaxation of the solids, and particular relaxation of the stomach and intestines, we shall not be long at a loss to account for this part of the Eastern practice in the course of inoculation: They allege in defence of it, that by the sudden shock of the cold water, and consequent increased motion of the blood, all offensive principles are forcibly driven from the heart, brain, and other interior parts of the body, towards the extremities and surface, and at the same time the intended fermentation is thereby more speedily and certainly promoted; (hence it probably is, that the fever generally commences so early as about the close of the sixth day). When the fever appears, they desist from the use of the cold water, because when the fermentation is once begun, the blood should not, they say, receive any additional commotion until the eruption appears, when they again resume the cold water, and continue it to the end of the disease; asserting, that the use of it alone, by the daily fresh *impetus* it gives to the blood, enables it utterly to expel and drive out the remainder of the *immediate* cause of the disease into the pustules. I have been myself an eyewitness to many instances of its marvelous effect, where the pustules have sunk, and the patient appeared in imminent danger, but almost instantly restored by the application of three or four collans of cold water, which never fails of filling the pock, as it were by enchantment; and so great is the stress laid by the Eastern practitioners on this preparative (for as the three interdicted articles in food is preparative to the inoculation, so this may be deemed preparative to the eruption) that when they are called in, and find, upon enquiry, that circumstance (and opening the pustules) has not been attended to, they refuse any further attendance.

The next and last article of the Eastern practice, which falls under our consideration is that just above mentioned, viz. the opening of the pustules whilst the matter continues in a fluid state. That a circumstance so important, so self-evidently rational and essential, should have been so long unthought of, appears most wonderful! And if my memory fails me not, Helvetius is the only writer upon the subject of the smallpox, that hinted it in practice before Doctor Tissot; this accurate and benevolent physician has enforced it with such strength of judgment and argument, that he leaves little room (except facts) to add to his pathetic persuasive; in this he is supported by his learned and elegant commentator and translator Doctor Kirkpatrick, (pp.226 and 227) and I am not without hopes it will, contrary to Doctor

Tissot's expectation, 'become a general practice'; the more especially, when it is found to have invariable success, and venerable antiquity, for its sanction.

So great is the dependence which the Eastern practitioners have on opening the pustules, in every malignant kind of the disease, that where the fluid state of the matter has been suffered to elapse without being evacuated, they pronounce the issue fatal, and it generally proves so; they order it in every kind, even the most distinct; for although in these it should seem scarcely necessary, yet they conceive it effectually prevents inflammation and weakness of the eyes, biles, and other eruptions and disorders, which so commonly succeed the disease, however benign; in very critical cases, they will not trust the operation of opening the pustules to the nurses or relations, but engage in it themselves, with amazing patience and solicitude; and I have frequently known them thus employed for many hours together; and when it has been zealously persevered in, I hardly ever knew it fail, of either entirely preventing, the *second fever*, or mitigating it in such sort, as to render it of no consequence; in various instances, which I have been a witness to, in my own, and others practice, I have seen the pustules in the *contiguous* kind, upon being successively opened, fill again to the fourth and fifth, and in the *confluent*, to the sixth, seventh, and eighth time; in the very distinct sort they will not fill again more than once or twice, and sometimes not at all, which was a plain indication, that the whole virus of the disease was expelled in the first eruption.

The Eastern practitioners, with great modesty, arraign the European practice of phlebotomy and cathartics in any stage of the disease, but more particularly when designed to prevent, or mitigate the second fever; alleging, that the *first* weakens the natural powers, and that the *latter* counteracts the regular course of *nature*, which in this disease invariably tends to throw out the offending cause *upon the skin*; that she often proves unequal to the entire expulsion of the enemy, in which case, her wise purposes are to be assisted by art, in that track, which she herself points out, and not by a diversion of the usual crisis into another channel; that this assistance can only be attempted with propriety, by emptying the pustules, as thereby fresh room is given in them for the reception of the circulating matter still remaining in the blood, and which could not be contained in the first eruption; by which means every end and purpose of averting, or subduing the *second fever* is obtained, with a moral certainty; whilst phlebotomy and cathartics, administered with this view, are both irrational and precarious; as being opposite to the constant operation of nature in her management of this dreadful disease.

It remains only that I add a word or two upon the Eastern manner of opening the pustules, which (as before mentioned) is directed to be done with a very fine sharp pointed thorn: Experience has established the use of this natural instrument in preference to either the scissors, lancet, or needle; the practitioners perforate the most prominent part of the pustule, and with the sides of the thorn press out the pus; and having opened about a dozen, they absorb the matter with a calico rag, dipped in warm water and milk; and proceed thus until the whole are discharged; the orifice made by the thorn is so extremely small, that it closes immediately after the matter is pressed out, so that there is no admission of the external air into the pustule, which would suddenly contract the mouths of the excretory vessels, and consequently the further secretion of the variolous matter from the blood would be thereby obstructed; for this consideration, the method recommended by Doctor Tissot, of clipping the pustules with sharp pointed scissors, is certainly liable to objection, as the aperture would be too large; when in the true confluent kind, no distinct pustules present, they perforate the most prominent and promising parts, in many places, at the distance of a tenth of an inch, usually beginning at the extremities; and I have often seen the pustules in the *contiguous*, and the perforated parts in the *confluent* kind, fill again before the operation has been half over; yet they do not repeat the opening until a few hours elapse, conceiving it proper that the matter should receive some degree of concoction in the pustules before it is again discharged.

If the foregoing essay on the Eastern mode of treating the smallpox, throws any new and beneficial lights upon this cruel and destructive disease, or leads to support and confirm the present successful and happy method of inoculation, in such wise as to introduce, into *regular and universal practice, the cool regimen and free admission of air*, (the contrary having proved the bane of millions) I shall, in either case, think the small time and trouble bestowed in putting these facts together most amply recompensed.

Notes

1. The instrument they make use of, is of iron, about four inches and a half long, and of the size of a large crow quill, the middle is twisted, and the one end is steeled and flatted about an inch from the extremity, and the eighth of an inch broad; this extremity is brought to a very keen edge, and two sharp corners; the other end of the instrument is an earpicker, and the instrument is precisely the same as the Barbers of Indostan use to cut the nails, and depurate the ears of their customers, (for in that country, we are above performing either of these operations ourselves).

The Operator of inoculation holds the instrument as we hold a pen, and with dexterous expedition gives about fifteen or sixteen minute scarifications (within the compass above mentioned) with one of the sharp corners of the instrument, and to these various little wounds, I believe may be ascribed the discharge which almost constantly flows from the part in the progress of the disease. I cannot help thinking that too much has been said (pro and con) about nothing, respecting the different methods preferred by different practitioners of performing the operation; provided the matter is thrown into the blood, it is certainly, a consideration of most trivial import by what means it is effected; if any claims a preference, I should conclude it should be that method which bids fairest for securing a plentiful discharge from the ulcer.

2. In an epidemic season of the confluent smallpox, turkeys, Chittygong fowls, Madrass capons, and other poultry, are carried off by the disease in great numbers; and have the symptoms usually accompanying every stage of the distemper. I had a favourite parrot that died of it in the year 1744; in him I had a fair opportunity of observing the regular progress of the disorder; he sickened, and had an ardent fever full two days before the eruption, and died on the seventh day of the eruption; on opening him, we found his throat, stomach, and whole channel of the first passages, lined as thick with the pustules as the surface of his body, where, for the most part, they rose contiguous, but in other places they ran together.

IX

THE METHOD OF MAKING THE BEST MORTAR AT MADRASS IN EAST INDIA

(By Hon'ble Isaac Pyke, Esq; Governor of St. Helena (Published 1732).)

Take fifteen bushels of fresh, pit-sand, well sifted; add thereto fifteen bushels of stone-lime: Let it be moistened or slack'd with water in the common manner, and so laid two or three Days together.

Then dissolve 20 lb of *jaggery*, which is coarse sugar (or thick molasses) in water, and sprinkling this liquor over the mortar, beat it up together till all be well mixed and incorporated, and then let it lie by in a heap.

Then boil a peck of *gramm* (which is a sort of grain like a *tare*, or between that and a *pea*) to a jelly, and strain it off through a coarse canvass, and preserve the liquor that comes from it.

Take also a peck of *myrabolans*, and boil them likewise to a jelly, preserving that water also as the other; and if you have a vessel large enough, you may put these three waters together; that is, the *jaggery*-water, the *gram*-water, and the *myrabolan*. The *Indians* usually put a small quantity of fine lime therein, to keep their labourers from drinking of it.

The mortar beat up, and when too dry, sprinkled with this liquor, proves extraordinarily good for laying brick or stone therewith; keeping some of the liquor always at hand for the workman to wet his bricks therewith; and if this liquor prove too thick, dilute it with fresh water.

Observe also, that the mortar here is not only to be well beaten and mixed together, but also laid very well, and every brick, or piece of brick, slushed in with the mortar, and every cranny filled up, yet not in thick joints, like the common *English* mortar; and also over every course of bricks, some to be thrown on very thin: And where the work hath stood, though but for a breakfast or a dining-time, before you begin again wet it well with this liquor with a ladle, and then lay on your fresh mortar; for this mortar, notwithstanding its being thus wetted, dries much sooner than one not used to it would conceive, but especially in hot weather.

For some very strong work, the same mortar above is improved as follows:

Take coarse tow and twist it loosely into bands as thick as a man's finger (in *England* ox-hair is used instead of this tow) then cut it into pieces of about an inch long and untwist it so as to lie loose; then strew it lightly over the other mortar which is at the same time to be kept turning over, and so this stuff to be beat into it, keeping labourers continually beating in a trough, and mixing it till it be well incorporated with all the parts of the mortar. And whereas it will be subject to dry very fast, it must be frequently softened with some of the aforesaid liquor of *jaggery, gram,* and *myrabolans*, and some fresh water; and when it is so moistened, and beat, it will mix well, and with this they build (though it be not usual to build common house-walls thus) when the work is intended to be very strong; as for instance, *Madrass* Church Steeple, that was building when I was last there; and also for some ornaments, as columns, good arched work, or imagery set up in gardens, it is thus made.

Though for common buildings about Madrass, where the rainy season holds not above three months in the year, and sometimes less, they usually lay all the common brick-work in a loamy clay, and plaster it over on both sides with this mortar, which is yet further to be improved. Thus far for building-mortar.

Having your mortar thus prepared, as is before described, you must separate some of it, and to every half bushel, you are to take the white of five or six eggs, and four ounces of *ghee* (or ordinary unsalted butter) and a pint of butter-milk, beaten all well together: Mix a little of your mortar with this, until all your *ghee*, whites of eggs, and butter-milk be soaked up; then soften the rest well with plain fresh water, and so mix all together, and let it be ground, a trowel full at a time, on a stone with a stone-roller, in the same manner that chocolate is usually made, or ground in *England*; and let it stand by in a trough for use. And when you use it, in case it be too dry, moisten it with some water, or the before mentioned liquor. This is the second coat of plastering.

Note, when your first coat of plastering is laid on, let it be well rubbed on with a hardening trowel, or with a smooth brick, and strewed with a gritty sand, moistened, as occasion requires, with water, or the before mentioned liquor, and then well hardened on again; which, when half dry, take the last mentioned composition for your fine plastering, and when it is almost dry, lay on your whitening varnish; but if your work should be quite dry, then your *chinam* liquor must be washed over the work with a brush.

The best sort of whitening varnish is thus made. Take one gallon of *toddy*, a pint of butter-milk, and so much fine *chinam*, or lime, as shall be proper to colour it; add thereunto some of the *chinam* liquor before mentioned, wash it gently over therewith; and when it is quite dried in, do the same again. And a plaster thus made is more durable than some soft stone, and holds the weather better in *India*, than any of the bricks they make there.

In some of the fine *Chinam* that is to endure the weather, and where it is likely to be subject to much rain, they put *gingerly oil* (*Oleum Sesami.*) instead of *ghee*, and also in some they boil the bark of the *mango* tree, and other barks of astringent natures, and *aloes*, which grow here in great plenty by the sea-shore; but to all of the fine *chinam*, that is for outside plastering, they put butter-milk, which is here called *toyre*. And for inside work they use glue made very thin and weak, instead of size, for white-washing; and sometimes they add a little gum to it.

N.B. Whereas sundry ingredients here mentioned are not to be had in *England*, it may not be amiss to substitute something more plentiful here, which I imagine to be of the same nature.

As to all the astringent barks, I take oaken-bark to be as good as any.

Instead of *aloes*, either *turpentine*, or the bark and branches of the *sloe* tree. Though *turpentine* be not so strong, yet if used in greater quantity, may serve the same purpose.

But there is a sort of *Aloes Hepatica*, often very cheap. Instead of *myrabolans* some juice of *aloes (*Sloes.*)*; also instead of *jaggery,* coarse sugar, or *molasses*, will do; instead of *toddy*, which is a sort of *palm* wine, the liquor from the *birch* tree comes near to it.

Note, that in *China*, and some other parts, they temper their mortar with blood of any sorts of cattle; but the ingredients before mentioned are said to be as binding, and do full as well, and does not make the mortar of so dark a colour as blood will do.

The plastering above described, is thought in *India* vastly to exceed any sort of *stucco* work, or plaster of *Paris*; and I have seen a room done with this sort of terrass-mortar that has fully come up to the best sort of wainscot-work, in smoothness and in beauty.

X

THE PROCESS OF MAKING ICE IN THE EAST INDIES

(By Sir Robert Barker. F.R.S. (Published 1775).)

The process of making ice in the East Indies having become a subject of speculation, I beg permission to present you with the method by which it was performed at Allahabad, Mootegil, and Calcutta, in the East Indies, lying between 25½ and 23½ degrees on North latitude. At the latter place I have never heard of any persons having discovered natural ice in the pools or cisterns, or in any waters collected in the roads; nor has the thermometer been remarked to descend to the freezing point; and at the former very few only have discovered ice, and that but seldom: But in the process of making ice at these places it was usual to collect a quantity every morning, before sunrise (except in some particular kinds of weather, which I shall specify in the sequel), for near three months in the year: viz from December till February.

The ice-maker belonging to me at Allahabad (at which place I principally attended to this enquiry) made a sufficient quantity in the winter for the supply of the table during the summer season. The methods he pursued were as follows: on a large open plain, three or four excavations were made, each about thirty feet square and two deep; the bottoms of which were strewed about eight inches or a foot thick with sugar-cane, or the stems of the large Indian corn dried. Upon this bed were placed in rows, near to each other, a number of small, shallow, earthen pans, for containing the water intended to be frozen. These are unglazed, scarce a quarter of an inch thick, about an inch and a quarter in depth, and made of an earth so porous, that it was visible, from the exterior part of the pans, the water had penetrated the whole substance. Towards the dusk of the evening, they were filled with soft water, which had been boiled, and then left in the afore-related situation. The ice-makers attended the pits usually before the sun was above the horizon, and collected in baskets what was frozen, by pouring the whole contents of the pans into them, and thereby retaining the ice, which was daily conveyed to the grand receptacle or place of preservation, prepared generally on some high dry situation, by sinking a pit of fourteen or fifteen feet deep, lined first with straw, and then with a coarse kind of blanketing, where it is beat down with rammers, till at length its own accumulated cold again freezes and forms one solid mass. The mouth of the pit is well secured from the exterior air with straw and blankets, in the manner of the lining, and a thatched roof is thrown over the whole. It is here necessary to remark, that the quantity of ice depends materially on the weather; and consequently, it has sometimes happened, that no congelation took place. At others, perhaps, half the quantity will be frozen; and I have often seen the whole contents formed into a perfect cake of ice: the lighter the atmosphere, and the more clear and serene the weather, the more favourable for congelation, as a frequent change of winds and clouds are certain preventives. For I have frequently remarked, that after a very sharp cold night, to the feel of the human body, scarce any ice has been formed; when at other times the night has been calm and serene, and sensibly warmer, the contents of the pans will be frozen through. The strongest proof of the influence of the weather appears by the water in one pit being more congealed than the same preparation for freezing will be in other situations, a mile or more distant.

To reason physically upon this process of making ice, it may be said, that had the thermometer been suspended in the air, free from every other body capable of communicating heat, in some parts of the night during the cold months of December, January, and February, the quicksilver might have descended to the freezing point, and that water, being artfully placed in a similar situation, contained in thin porous pans, and supported by a substance little capable of communicating heat from the earth, might also freeze, and continue in a state of congelation till the heat of the morning came on. I say this may be possible; but at the same time I must beg leave to observe, that, during my residence in that quarter of the globe, I never saw any natural ice. I cannot declare that the thermometer has not descended to the freezing point during the night, because I never made the necessary observations; but the water in every other situation, excepting in the pans, has not appeared to be in a freezing state. The climate may probably contribute in some measure to facilitate the congelation of water, when placed in a situation free from the heat of the earth, since those nights in which the greatest quantity of ice has been produced, were, as I before observed, perfectly serene, the atmosphere sharp and thin, with very little dew after midnight. Many gentlemen, now in England, have made the same remarks, in their frequent visits with me to the ice-pits. The spongy nature of the sugar-canes, or stems of the Indian corn, appears well calculated to give a passage under the pans to the cold air; which, acting on the exterior parts of the vessels, may carry off by evaporation a proportion of the heat. The porous substance of the vessels seems equally well qualified for the admission of the cold air internally; and their situation being full a foot beneath the plane of the ground, prevents the surface of the water from being ruffled by any small current of air, and thereby preserves the congealed particles from disunion. Boiling the water is esteemed a necessary preparative to this method of congelation; but how far this may be consonant with philosophical reasoning, I will not presume to determine.

From these circumstances it appears, that water, by being placed in a situation free from receiving heat from other bodies, and exposed in large surfaces to the air, may be brought to freeze when the temperature of the atmosphere is some degrees above the freezing point on the scale of *Fahrenheit's* thermometer; and by being collected and amassed into a large body, is thus preserved, and rendered fit for freezing other fluids, during the severe heats of the summer season. In effecting which there is also an established mode of proceeding; the sherbets, creams, or whatever other fluids are intended to be frozen, are confined in thin silver cups of a conical form, containing about a pint, with their covers well luted on with paste, and placed in a large vessel filled with ice, salt-petre, and common salt, of the two last an equal quantity, and a little water to dissolve the ice and combine the whole. This composition presently freezes the contents of the cups to the same consistency of our ice creams & c. in Europe; but plain water will become so hard as to require a mallet and knife to break it. Upon applying the bulb of a thermometer to one of these pieces of ice, thus frozen, the quicksilver has been known to sink two or three degrees below the freezing point: so that from an atmosphere apparently not mild enough to produce natural ice, ice shall be formed, collected, and a cold accumulated, that shall cause the quicksilver to fall even below the freezing point. The promising advantages of such a discovery could alone induce the Asiatic (whose principal study is the luxuries of life, and this may well be called such, when I have often regaled with ices when the thermometer has stood at 112°), to make an attempt of profiting by so very short a duration of cold during the nights in these months, and by a well-timed and critical contrivance of securing this momentary degree of cold, they have procured to themselves a comfortable refreshment as a recompense, to alleviate, in some degree, the intense heats of the summer season, which, in some parts of India, would be scarce supportable, but by the assistance of this and many other inventions.

XI

USES OF THE SON AND MANUFACTURING OF HINDOSTAN PAPER

(By Lt Col Ironside [published 1774].)

This useful plant,[1] I believe, is cultivated all over Hindostan. The seeds are sown in July, before the rains begin; they should be sown near to one another, to make the stem rise higher, more erect, with fewer branches, and to increase the produce. It flowers in October, and is taken up in December.

The black ladies use the seeds, reduced to powder and mixed with oil, for their hair, upon a supposition, that this composition will make their hair grow to a great length, which they are very fond of.

From the bark are made all kinds of rope, packing cloths, nets, & c. and from these, when old, most of the paper, in this country, is prepared; for these purposes, the fresh plant is steeped four days in water, afterwards dried, and treated as the cannabis for hemp, to which it is so similar when prepared, that Europeans generally suppose it to be the produce of the same plant.

As the substances, producing cloths, ropes, and paper, are few in present use, this plant may perhaps be cultivated with advantage, in some of the British West India Settlements, and in other countries destitute of hemp and flax. It is not improbable, that it may be raised in the warmer climates of Europe, as it ripens here in winter. I cannot say, what soils it may refuse; where I have seen it, in the greatest plenty and perfection, has generally been upon an earth composed of clay, calcareous grit, and sand.

There are other vegetable substances used here for the purpose of rope making; one of them is a species of the hibiscus, a description of which I propose for the subject of another paper: I can scarce doubt, but that it is only for want of experiments, we have not a greater number of vegetables rendered useful in this manner. The class *Monadelphia*, of Linnaeus, promises fair for trials of this kind.

THE HINDOSTAN METHOD OF MANUFACTURING PAPER

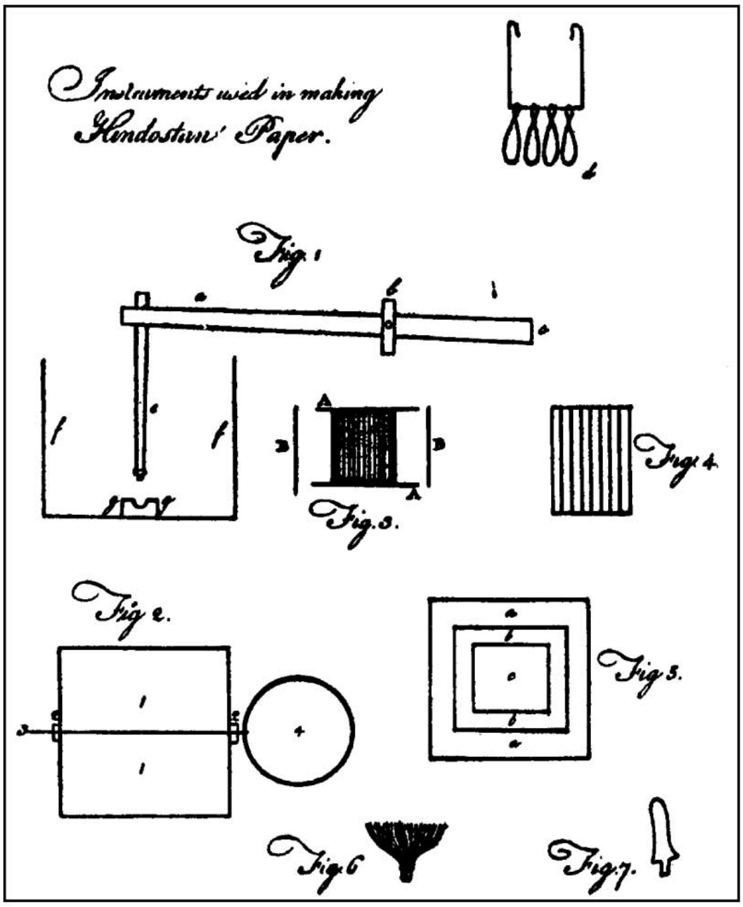

DIAGRAM I

The manufacturer purchases old ropes, cloths, and nets, made from the *son* plant, and cuts them into small pieces, macerates them in water, for a few days, generally five, washes them in the river in a basket, and throws them into a jar of water lodged in the ground; the water is strongly impregnated with a lixivium of *sedgimutti*[2] six parts and quick lime seven parts. After remaining in this state eight or ten days, they are again washed, and while wet, broken into fibres, by the stamping lever, *Fig 1.* [Diagram I], and then exposed to the sun, upon a clean terrace, built for this purpose; after which, they are again steeped, in a fresh lixivium, as before. When they have undergone three operations of this kind, they are fit for making coarse brown paper; after seven or eight operations, they are prepared for making paper, of a tolerable whiteness.

The rags, thus prepared, are mixed with water in the cistern, (*Fig.2*) at the edge of which, the operator sits, and removing the stick, he extends the screen (*Fig.3*) upon the frame (*Fig.4*) with which he agitates the water in the cistern, until it appears of a milky whiteness, by the floating particles of the rags; he then dips the frame and screen, in a perpendicular manner, and raises them gently, in a horizontal position, to the surface of the water, where he gives the frame a gentle motion, from side to side, or from end to end, to make the particles of the rags fall in an equal layer upon the screen, and then he lifts them out of the water, and rests them for the space of a minute upon the stick 3 (*Fig. 3*). After repeating the dip once more in the same manner, the new sheet of paper is formed; then, taking off the extensors, *BB*, of the screen, he rolls inwards, for about an inch, the upper part of the screen and sheet, by which means, so much of the sheet will be separated from the screen; the screen is then inverted, and the already separated end of the paper is laid upon the mat (*Fig. 5*), and the screen is gently raised from the paper. In this manner he forms sheet after sheet, until he has made 250, his day's task, laying them all upon the first sheet, in a regular manner; then he covers the whole with a coarse cloth of the *son*-plant, equal in size, with the paper; above this he lays a thick plank, somewhat larger than the paper. This by its weight presses out the water from the wet sheets; to assist which, the operator sits upon it for some time. Then the heap is set to one side until morning, when the sheets are taken up, one by one, and spread with the brush, (*Fig. 6*), upon the clean plastered walls of the house; as they dry, they readily peel off, and are spread upon a clean mat or cloth, and with a piece of blanket, dipped in thin rice paste water, rubbed all over, and immediately hung up, to dry, upon strings run across the house for this purpose. When sufficiently dried, they are cut into a quadrangular form, according to a standard sheet, which serves as a guide to the knife (*Fig. 7*). From this operation, they are carried to another person, who rubs every sheet smooth with a globular piece of moorstone granite, which he holds in both hands. Then he folds the sheets for sale. The finer paper is polished a second time. All the cuttings, and damaged sheets, are trampled to pieces in water, and renovated as above.

INSTRUMENTS USED IN MAKING THE PAPER (DIAGRAM I)

Fig. I a. A stamping lever, ten feet long, and seven inches squared timber.

b. Two pieces of wood, fixed in the floor, to support the axis of the lever.

c. This end of the lever is pressed down by the feet of two men.

d. Is a stick, suspended from the roof of the house, to which are fastened four ropes which support the arms of the workmen.

e. The head of the stamper four feet long, and four inches squared timber, bound and shod at the point with iron.

ff. A perpendicular section of a terraced cistern, dug in the ground-floor about 4 or 5 feet square.

gg. A square stone, in the bottom of the cistern, excavated in the middle, to receive the head of the stamper, by which the rags are beat to pieces. A person is stationed in the cistern, to supply the stamper with rags.

Fig. 2 1.1. A terraced cistern, dug in the floor, 4 or 5 feet square, having two little eminences.

2.2. At the edge, to support the stick.

3. Occasionally.

4. A jar, lodged in the floor, to hold in readiness the prepared rags.

Fig 3 Is made in the manner of the Chinese bamboo window-screens. The transverse lines are fine rush, or a grass, neatly bound with horse hairs, which makes the longitudinal lines.

AA. Two sticks, to which the screen is fastened, and extended by the two sticks.

BB. Occasionally.

Fig. 4 A form of wood, with seven bars, to support the screen (*Fig. 3)*. The bars are so fixed, as that their acute edges only touch the screen, that there may be no obstruction to the passage of water through the screen.

Fig.5 aa. Is a terrace, 4 or 5 feet square, inclined a few inches, that water may readily run from it.

bb. A mat or board laid upon the terrace.

c. The new formed sheet of paper laid upon the mat.

Fig. 6 A flat hair brush for spreading the wet paper upon the walls of the house.

Fig. 7 The double edged knife with which the paper is cut into a proper form.

Notes

1. [The San: ºÉxÉ] This plant is described by Linnaeus, under the name of Crotalaria juncea, vid. Spec. Plant. 1004. A figure of it is given by Ehret in Trews Plant. Select.t. 47. and another in the Hort. Malab. 9.p. 47.t.26. Both these figures are good.

2. Sedgimutti is an earth, containing a large portion of fossil alkali. The *natron* (Transliterated from the original in Greek: *Editor.*) of the ancients. It is found in great plenty in this country, and universally used in washing, bleaching, soap making, and for various other purposes.

XII

INDIAN AGRICULTURE

(By Major General Sir Alexander Walker (circa 1820))

Agriculture of Malabar. Hindoo Husbandry in general—Condemned by Europeans. How far that censure is just? Their ploughs and implements of Husbandry. The principles of agriculture understood but impeded by the want of capital and impoverished condition of the people. Various opinions and statements. Tanks, Drill Ploughs: irrigation and transplanting. Opinion on the agriculture of Guzerat and Deccan. Malabar Husbandry. Rice—condition of the people different: large farms. Proprietors. Tenants. Slaves and hired Labourers. Soil.

Agriculture is the art of cultivating the ground. It is the art of raising all kinds of trees, plants, fruits and grains.[1] It is in fine the most effectual and expeditious method of procuring abundant harvests. This system cannot be perfect without the use of a considerable number of tools and instruments, and of animals subdued to labour. The system will be more or less laborious and troublesome, according to the nature of the climate and soil. These are simple and obvious propositions to which every one will give his assent. It is necessary however that they should be remembered in the course of the following remarks. The state of agriculture in Malabar will form a strong contrast, with that of the first Husbandmen, who had neither ploughs nor beasts of burden. It will also be admitted, that the art of cultivating the soil is the most important of human labours. It is the first step in the progress of civilisation: a compact and numerous population is the result of the industry and ingenuity which produces food.

It is on the power of augmenting the means of subsistence, that the increase of the people depends.

In Malabar the knowledge of husbandry seems as ancient as their History. It is the favourite employment of the inhabitants. It is endeared to them by their mode of life, and the property which they possess in the soil. It is a theme for their writers; it is a subject on which they delight to converse, and with which all ranks profess to be acquainted. They have provided a code of rules for good husbandry. A system is laid down for the proper cultivation of the soil. The rights of the proprietor and of the mere occupier of land are distinguished and explained. The Husbandman is protected. The proprietor is secured against bad management, while the cultivator or improver is encouraged. There is a curious analogy between their agricultural Code and that of the Scandinavians. The customs of both people gave a legal sanction to the privileges of the cultivator. The duties of the landlord and the tenant are defined; those of the Master and servant.[2] The Bondi and the Chirmir were the Husbandmen; they were the slaves of the soil, but yet under a legal protection. The price of labour was paid in Victual: this practice was anciently in Malabar, and is still in many instances followed. The farming leases contained arrangements for the management of the land. Another unfortunate resemblance consisted in obliging the peasants and artisans to work at low rates for Government.[3] One of the most remarkable of the rites of Hindoo worship probably owes its origin to their respect for agriculture. Their sacred Bulls, and their superstitious regard for the cow, have their foundation in the great service they rendered to husbandry. Under all these circumstances of favour and encouragement, we should expect that it would be the study of this people to improve the art of cultivating the ground, and that they would in such a length of time have discovered the most convenient and effectual instruments for the purpose. This however has been strenuously denied by those who wish to accommodate the ideas and habits of European Husbandry to that of Malabar. They reproach the Hindoos for employing rude and imperfect instruments. This censure cannot apply equally to every part of India where various instruments are in use, and of different construction. The plough is the first and most important machine in agriculture. In Guzerat it is a light and neat instrument. It has no Coulter but has a sheathing of iron: the furrows of the Husbandman are as straight as a line, and of sufficient depth to produce the most abundant crops. This is the real and only useful test of good farming.

The form of the plough in Malabar is nearly the same, but it is still lighter, and more rudely constructed. A man may carry one of them on his back. They are nevertheless convenient, accommodated to the soil and the labour. The structure of these instruments, all over India is very simple; but they answer the purpose of the Husbandman where the soil is light, unobstructed by stones, and softened with water.

In a climate where the productive powers are so great, it is only necessary to put the seed a little way into the ground. If it was buried deeper, it would rot and decay before it could germinate, or it would remain dormant in the earth. This is the case with several roots and seeds, when they are put deep in the ground and as it were interred; the process of germination ceases. It remains dormant for years, until the seed is again brought to the surface, and exposed to the vivifying rays of the sun.

It is not necessary in this mild and regular climate, to protect the seed from frost and cold. Experience is the best test of every thing. It must be a strong proof that the Indian plough is not ill adapted for its purpose, when we see arising out of the furrows it cuts, the most abundant and luxurious crops. What can be desired more than this? The labour and expense beyond this point must be superfluous. The Indian peasant is commonly well enough informed as to his interest, and he is generally intelligent and reflecting. This is the character of his class everywhere. He is attached to his own modes, because they are easy and useful; but furnish him with instruction and means, and he will adopt them, provided they be for his profit. He will not be led away by speculation and theory, which he cannot afford to follow; but he will not refuse any more economical, and less laborious mode of cultivation. He must have prejudices and ancient habits, which it would be difficult to shake; but let him clearly understand that the change would give him less trouble and better crops, and he would adopt it.

They have been always ready to receive the roots and seeds of Europe, that suited their climate, and have adopted several which they found to answer their purpose into their regular course of cultivation. All over the world men are attached to their early habits and ancient customs. The History of our own artists and manufacturers would afford many strong instances of this. Although men of superior education and intelligence, it has often been very difficult to make them alter their established methods after science and philosophy had detected their errors.

I remember that almost 40 years ago an experiment was made on Salsette by delivering to the natives English ploughs and agricultural implements. Some active and enterprising Mahrattah Husbandmen who had but few prejudices were procured: a village was built for them, they were furnished with seed and cattle. They entered on the trial of their own accord and choice. Having adopted the measure it was their interest that it should succeed, and there was no reason that I could ever discover that it failed through any negligence or misconduct of theirs. That it did fail however is certain, and as usual we imputed the failure to the prejudices, sloth, and obstinacy of the natives. I firmly believe however that they judiciously rejected the whole of the cumbrous European machinery. They objected that the plough was too heavy: that the labourer and his oxen were needlessly fatigued: that it therefore performed less work, and that this was not better done for the purpose required than the work of their own plough. It was next observed that the plough was too costly, and similar objections were made to the greatest part of the European equipment. I would not say that this experiment was decisive, or that they have nothing to learn from us, but before we charge them with ignorance and obstinacy for neglecting to adopt our recommendations, we should first be sure of two things; that the new system would give them more abundant harvests, at less expense and labour; and that we have taken all the means and care that were within our power, for their instruction in the art? It should also be well considered how far our agricultural process is suited to the cultivation of rice, the great crop of India, and of which we have no experience.

The figure and power of the instrument must be suited to the soil and climate. The American plough of Rhode Island does not weigh more perhaps than 40 lbs. It has no Coulter and a man can easily carry it in his arms; but it would be absurd to expect that this plough would answer any where but in the lightest soils.

The agricultural society which has been formed in Calcutta may diffuse knowledge and correct some errors: they contemplate the introduction of new and useful plants; the improvement of implements of husbandry and stock;[4] but the Indian Husbandman must be rendered independent and furnished with capital before he can enter into the expensive details and machinery of the English farmer. It can be of little importance to him to rear stock for the purpose of food, where it is only eaten in any quantity by a handful of Europeans. Even this encouragement has generally, if not always, been sufficient to secure at the European stations, an abundant supply of excellent and wholesome meat.

We ought also to remember that India has very little occasion for the introduction of new plants for food. There are more kinds of grain cultivated perhaps, than in any other part of the world. She has also a vast variety of nutritive roots, and as a fruit, the plantain alone supplies her with the most nourishing diet.

The potato is cultivated in many parts of India; and I have seen Bramans making their repast on it; but the yam is equally pleasant, and perhaps a more alimental food. I am at a loss to know what essential present we can make to India. She has all the grains that we have and many kinds more of her own. If we should give her some fruits and vegetables, we should first be certain that they are agreeable to her taste. Most of our fruits would be too sour, or would degenerate in the climate. The instrument of taste is likewise very various. There is a national as well as an individual relish for food. It is unnecessary to look for examples, as every man's own experience, and every nation of Europe will supply them.

Nothing should surprise us more in the present condition of the Indian cultivator than his persevering industry, and well cultivated fields.

Any other than a people of a very buoyant spirit would have sunk under these circumstances.

The Hindoos have been long in possession of one of the most beautiful and useful inventions in agriculture. This is the Drill Plough. This instrument has been in use from the remotest times in India. I never however observed it in Malabar, as it is not required in rice cultivation in which its advantages have been superseded by transplanting. The system of transplanting is only in fact another method of obtaining the same object as by Drill Husbandry. It would be but just to adduce this, as another proof of the ingenuity of this people and of their successful attention to this branch of labour. They have different kinds of ploughs, both Drill and common, adapted to different sorts of seed, and soils.

They have a variety of implements for husbandry purposes, some of which have only been introduced into England in the course of our recent improvements. They clean their fields both by hoeing and hand weeding; they have weeding ploughs, which root out and extirpate the weeds. A roller would be useless on rice grounds, which are always wet, and frequently an equal mixture of water and mud. The place of the roller is supplied by an instrument which levels or smooths the ground, without turning on an axis. They have also Mallets for breaking clods, the usual assortment of Hoes, Harrows and Rakes.[5]

It has been objected to these instruments that they are simple, clumsy and crude. This does not however make them less useful. Simplicity cannot surely be counted a fault; in some of our districts the plough is by far too complicated a machine. They are not unhandy to the people who have been in the habit of using them. They appear awkward to us because we have not been in that habit, and because the Indian Husbandman can afford to throw away nothing on ornament. The same instrument painted and smoothed by the plane would have given a very different idea of its value. The judgement of the eye decides more than we imagine. All this however depends rather upon taste and opulence, than on utility. The circumstances of an Indian Husbandman are not to be compared to those of our substantial tenants. They can study effect and appearance, which are in fact essential to their credit as good farmers. It is not however very long since we have painted and polished our ploughs. I have seen them within these few years in some parts of the country covered by the unremoved bark of the tree.

The numerous ploughings of the Hindoo Husbandman have been urged as a proof of the imperfection of his instrument; but in reality they are a proof of the perfection of his art. It is not only to extirpate weeds that the Indian Husbandman reploughs and cross-ploughs; it is also to loosen the soil, apt to become hard and dry under a tropical sun; and hence it becomes necessary to open the earth for air, dew and rain. These advantages can only be obtained by exposing a new surface from time to time to the atmosphere. In India dews fall much more copiously than they do with us, and they are powerful agents in fertilising land. Weeds also increase with a quickness, and a luxuriance, of which we can form but an imperfect idea in this country. These are sufficient causes for the frequent operation of ploughing, without the necessity of blaming either the Husbandman or his implement. The frequency of ploughing must depend every where on the nature of the soil, its situation, and the purpose for which it is intended. In some cases, our farmers in this country, plough three or four, and even as often as six times.[6]

It is the practice in many parts of India, to sow different species of seeds in the same field. This practice has been censured, but it is probably done for the same reason that our farmers sow rye grass and clover with wheat, barley; or oats; tares with rye; beans and peas; vetches and corn, etc.

It has been found by experience that these crops not only thrive in the same field; but improve each other. Rye and oats for instance, serve to support the weak creeping tares, and add besides to the bulk of the crop by growing through the interstices. Clover and rye grass are sheltered by the corn. This analogy will apply to the Husbandry of India. These similar experiments may be carried further, where the climate and soil are superior. In India different kinds of seeds when sown in the same field are kept separate by the Drill, or they are mixed together, and sown broadcast. In the last case they are commonly cut down as forage. A plant called sota gowar, is sown broadcast with sugar cane, in Guzerat. The gowar serves as a shelter to the sugar cane, from the violent heat of the sun, during the most scorching season of the year. Joar and badgery are sown together, in the same country late, not for the sake of a crop, but for straw, which is very nutritive, and very abundant. This is one of the instances in which the natives provide a green crop for their cattle. Other grains are sown both together and separately, merely for their straw. Soondea, darrya joar, rateeja and goograjoar are sown together: but with the exception, of goograjoar which is allowed to ripen, the rest are reaped while they are green.[7]

It is evident that these examples are not founded on bad principles, and that they are in conformity with the best practice of farming. They evince the care of the Hindoo Husbandman to provide food for his labouring cattle. This is an object to which I have generally seen him attentive; but in many parts of India during the dry season it is extremely difficult, and often exceeds the impoverished means of the cultivator, to lay in a sufficient supply. He is sensible enough of the want, and does his utmost to scrape together, all the heterogeneous substances that are within his reach. In some parts of India, hay is not made, in other parts it is a regular crop, stacked and preserved. This is the case in Guzerat, and some other pergunnahs. The hay is cut down not by the scythe but by the reapers hook: It is dried and brought home in carts. The stacks are generally of an oblong shape something like our own, but often of much larger dimensions than any that I have seen in England. The stack is not thatched merely, but covered and protected, by a moveable roof. In those parts of India where hay is not made and which are I believe unfavourable to this kind of crop, the cattle are fed with the roots of grass, very like our fiorin, with straw, and especially with the straw of joaree, all of which are considered to be very nourishing food. The roots of this grass are preferred by our own people in the Carnatic to hay. Besides the Hindoo in many parts of India, prepares various crops of pulse, solely for the use of his domestic animals. In some places he feeds them with carrots. Lately, an ingenious gentleman has sown with great success, near Kaira in Guzerat, clover.[8] The seed was obtained from Bussara and produced a most abundant crop. It fed a cavalry regiment, and kept it in excellent order.[9]

It would require a volume to pursue all the details of Hindoo Husbandry. I shall however mention some other principal features. In many parts of India the fields are fenced and enclosed. This is the case wherever the people live in quiet and security. It is sufficient to show what was the ancient practice, when the Government was good and the country not exposed to the ravages of war. In Guzerat this attention to the security of property was seldom neglected. Even during the native Government, the Ryot was protected in his revenue engagements; in case he might not be able to fulfil them, either from war or adverse seasons. This was effected, by exempting him in his lease, on the event of any of these circumstances occurring, by the phrase 'Asmani Sultanee'. The enclosures are generally of a square form. The divisions are seldom very large, and are of unequal sizes according to the judgment, interest, or taste of the proprietor. They are remarkably neat, kept clean, and well dressed. These fields have frequently broad grassy margins which are left for pasture, such as are seen in some parts of Yorkshire. The whole world does not produce finer and more beautifully cultivated fields than those in Guzerat. In the neighbourhood of towns, they are commonly planted at the edge, with fruit, and other trees. This gives them the appearance of our Hedge-rows, and they may be compared to the finest parts of England.

This appearance is not peculiar to Guzerat: It may be found in many other countries of India. I am desirous that these remarks should not be considered as extending to Bengal, of which I have had no personal observation. The gentlemen who have resided in that province seem to agree in giving an unfavourable account of its agriculture, and of its people. They describe the natives as characterised by the lowest and most disgusting vices. If this be so, they should not be considered as affording a just notion of the rest of India. It has however actually been by this mark that the public judgment has been in a great degree formed of the qualities of perhaps 200 millions of human beings, spread over a vast country, and divided into many nations, some of whom are totally unknown in Bengal. This species of amalgamation has happened from the superior wealth and political importance of Bengal, from our connection with it, and from the fallacious practice of drawing a universal conclusion from a particular fact.[10]

My own experience agrees entirely with the neat, accurate and comprehensive view that Colonel Wilks has given of the Husbandry of Mysoor.[11] I have seen from Cape Comorin to the Gulf of Kutch details of the most laborious cultivation, of the collection of manure, of grains sown for fodder, of grain sown promiscuously for the same purpose; of an attention to the change of seed, of fallows, and rotation of crops. The rotation may sometimes be imperfectly followed; but it is a system understood and acted upon throughout India, with more or less skill and intelligence. All the changes however which are necessary for preserving the fertility of land in Europe, may not be equally essential to the fecundity of soil, under a climate like that of India. In America, virgin or new land continues for many years to produce crop after crop, without the assistance of manure. In Lithuania there is a regular succession of the same crops: even in Britain in the neighbourhood of towns, where there is a perpetual command of manure, the regular rotation is frequently neglected without impoverishing the land. In the West Indies, where there is no cultivation but the sugar cane, the same crop is constantly produced.

We may see from all these instances, that though it is a rule of good husbandry to avoid a frequent repetition of the same species; yet it may under particular circumstances be entirely disregarded without any bad consequences. Some places are more indebted for good crops to the natural fertility of their soil than to artificial labour and skill.

Rice is supposed to be the least exhausting of any crop. It occupies the ground but a short time and binds it less than any other culmiferous plant.[12] The water and moisture by which it is continually surrounded, keeps the soil soft, divided, and pulverised. It is by some causes like these, that the Indian farmer is enabled to repeat the same crop for many years in the same field with this species of grain. We must allow something also to the extraordinary fruitfulness of the soil, and the regularity of the climate.[13]

In every part however that I have visited the application of manure for recruiting and restoring land is well understood. The people seem to have all the resources that we have in this respect. By littering their cattle with straw, they increase the quantity of manure. They collect leaves, and putrescent substances. When they have no means of rotting the straw, they mix it with dry dung, old grass and even branches of trees, which they place in a heap and set fire to it. The ashes are then spread on the ground. The slime and bottoms of tanks are dug up, and considered to be a valuable manure.

It may be considered as a part of Indian Husbandry, though by no means a universal custom, as it is only in particular situations practicable, to set fire to the long and luxuriant grasses which the cattle have not consumed. This is not practised in arable husbandry where it is unnecessary. The stubble of a rice field is ploughed into the ground in the same way as with us; but it is resorted to for reducing the natural pastures of the hills, which are beyond the reach of the plough. These luxuriant grasses are burnt and decomposed in order to nourish a new growth. It is the same operation, and for the same purpose, as that of burning heather for improving sheep pasture. This is usual practice in the Concan and Deccan; but it is not so generally resorted to in Guzerat, or in Malabar, as it is not so well suited to the circumstances of those countries. The practice of burning grass is only followed on bare and naked mountains. In those that are covered with trees, such as the Ghats in Malabar, it would be destructive, and is not therefore had recourse to. In the Concan, and where the high lands are generally without wood, and where the grass grows to the luxuriance almost of reeds, the burning system is pursued. Wherever it is practised, the natives consider it as a proof of barrenness, and caused by a curse of one of their gods. The heat of the sun, natural and artificial moisture, and the inundations of rivers, keeps the soil in India in a state of perpetual fecundity and renders it fruitful year after year, as was the case under the same circumstances in Egypt.

The Indian farmer is again reproached for using his dung for fuel; but an explanation of the fact will in some measure vindicate him from this censure. The dung which is employed in this way (a small quantity after all) is obtained principally from what the animal lets fall on the high road, and which would otherwise be lost. Boys and girls are employed with baskets to gather it up from the roads and streets as in our own country. These children are seldom those of the cultivators, but of any of the inhabitants, most commonly of very poor people, who mix the fresh dung with charcoal or straw, make it into cakes, and dry them in the sun.[14] The boys and girls may be seen in many parts of the North of England employed in the same way; and I have been told that in no very remote time a similar manufactory was carried on all over this country.

I have already mentioned the Drill Husbandry, as an invention of the Hindoos; that of transplanting which has the same object in view, is equally useful and beautiful. It gives the field the regularity of a garden, and every vacant space is filled up. The operation of transplanting is calculated to afford one fourth more of produce than the broadcast method of cultivation. Many of the details of Hindoo Husbandry are curious and original.

The practice of watering and irrigation is not peculiar to the husbandry of India, but it has probably been carried there to a greater extent, and more laborious ingenuity displayed in it than in any other country. The vast and numerous tanks, reservoirs, and artificial lakes as well as dams of solid masonry in rivers which they constructed for the purpose of fertilising their fields, show the extreme solicitude which they had to secure this object.[15]

These works were not always executed at the expense of Government; they were often defrayed by the zeal of wealthy individuals, and sometimes by women. The names of these benefactors are still preserved; but they frequently serve only to commemorate a dry spot, and to point out where a tank had been. Perhaps no circumstance can more strongly show the decline of India than the decay of those works, which were at one time necessary to supply with food an abundant population. The bottoms of many of the tanks are now converted into rice fields, and the waters of others run waste. The dry bottoms still retain moisture, and as they are enriched with the alluvial deposits of a former age, they are eagerly seized by the Husbandman, who is sure to be rewarded by an abundant crop. The ruin of these beneficent labours cannot but give to the traveller in passing, melancholy and unpleasant reflections.

The Mohammedans were probably excited by the example[16] and intercourse of the Hindoos to cultivate the arts of peace, and they also employed themselves in constructing many magnificent reservoirs for water. There was a great distinction however in general between the works of the two people.

For the most part the tanks of the Musselmans were built for luxury, ostentation and ornament. Many very expensive ones were unfit for irrigation. Ali Merduns canal however, a noble and useful work, was an exception to this remark.

Besides the great reservoirs for water, the country is covered with numerous wells which are employed for watering the fields. The water is raised by a wheel either by men or by bullocks, and it is afterwards conveyed by little canals which diverged on all sides, so as to convey a sufficient quantity of moisture to the roots of the most distant plants.[17] When these are seen in operation it gives the most cheerful picture of quiet and useful industry, that can occur even to the imagination. The very sight of it conveys to the mind peace and tranquillity.

I must repeat that I have seen in India the most abundant crops 'the corn standing as thick on the ground as the land could well bear it'; fields neat, clean and generally without a weed. Infinite pains are taken to extirpate these, and several ingenious instruments have been contrived for the purpose.

It is hardly possible that a weed can be found in a transplanted field, where every stalk is put in by the hand, and carefully planted.

The Husbandman in fine labours incessantly to increase his produce, varying his operations according to circumstances, and acting always when he can, on fixed principles. A system of rotation is attended to, but the alluvial deposits make it in many places unnecessary, and local peculiarities, local oppressions, and the want of resources compels the cultivator to forego many advantages: he is obliged no doubt by so many pressing necessities too often to deviate from the best plan; to submit to such shifts and expedients as are within his power. Some allowance should be made for the circumstances of the people, general as well as particular. Some compassion should be felt for their situation, and when we see one district highly cultivated, another in poverty, and the wrecks everywhere of a greater agricultural prosperity in former times, would it not be equitable and just to conclude that ignorance and stupidity were not the sole causes of these anomalous appearances? The flying surveys, partial, and hasty reports that have as yet only been made of their agriculture, are not to be depended upon. It would require the leisure and application of years, much patience and knowledge of the subject, and a judicious allowance for the peculiarities of the climate, to appreciate either the merits or defects of Hindoo Husbandry. In the present political state of India; the connection and dependence of the greatest part of that fine country on the British Government, renders it an imperious duty for us to use every prudent and proper means for the improvement of its condition; but we should be careful in these attempts at amelioration not to throw it back, and to obstruct its progress, by too hastily condemning the practices of the country, which have been sanctioned by experience, and have their utility in local circumstances. The minds and inclination of the people should be consulted wherever their own interests are concerned. In general their experience is the best guide. It is in vain to suggest expensive improvements where there is no capital, where the rent is taken as a tax by Government, and where the proprietory right of the soil is disputed. The cultivation of grain in some places yields no profit to the Husbandman, beyond his mere subsistence.[18] In this case there is neither means, nor stimulus for improvement. Notwithstanding all these disadvantages, the state of agriculture among the Hindoos is respectable: I may say wonderful. Some of the details of their management would furnish information to the European farmer; when they follow a bad system, it is not from ignorance of the true principles of the art, but from poverty and oppression; remove these and improvement would follow. The Hindoos, whatever may be their moral qualities, are a temperate and an industrious people, knowing, and well acquainted with their own interests. In the course of our intercourse with them they have adopted many things from Europe, and they are continually adding when it suits their taste and convenience. If their system of agriculture is bad, they will alter it as soon as we can show them a cheaper and an easier way of procuring more abundant harvests; but this will not be produced by mere theoretical recommendations. We should succeed in altering many of the habits and practices of India, provided it were possible to compel our own habits to mix with the labours of the people. It is more than probable that any great change depending on the introduction of European arts and manners will be introduced by the Half-castes (i.e., those of mixed Indo-European parentage.—*Editor.*) who are now spreading and multiplying in the usual increasing ratio of population. I shall conclude these general remarks by an extract from a letter of a valuable friend whose intelligence and opportunities of observing the practice of Indian Husbandry, are not I believe exceeded by any man in that country.

'In Guzerat, and indeed in the Deccan, but especially in Guzerat, careful and skilful agriculture, is probably, as much studied as in England. In many points an English farmer might condemn the practice at first sight; but in time he would learn, that much of what he did not approve, under an idea that the same system in all respects that succeeds in England ought to be followed here, was of the first importance; was in fact what constituted the great means of success in this climate and that to depart from the existing practice would be folly. For instance as to ploughing in this country, it is condemned as not being deep enough. The native however knows from experience that the soil at the surface, and which has been well heated by exposure to the sun, is that which yields the best return. It is not uncommon to see them before the hot season plough their more valuable lands roughly, so as to expose as much as possible of the soil to the revivifying influence of the sun. It is a fact too, that in most soils in Northern Guzerat, the lands are more productive, when kept continually from year to year under cultivation, than when allowed to lie fallow: such soils however as improve by a year or two's respite, always receive it. This is not uncommon in the Surat, and even in the Broach district, and in some parts of the Deccan. One of many proofs that were requisite, the system of the natives, is too well founded on experience to reject it.'[19]

It is now time to return to the more immediate subject of this article, the husbandry of Malabar. The practice varies in many respects from the Northern parts of India, or where they grow wheat, and other grains which are not cultivated in Malabar. The practice is regulated by the soil, the surface and the crops. In each region of India there is some peculiarity in the mode and articles of cultivation, which must be adapted to the climate, the difference of seasons, and the nature of the ground.

In Malabar; agriculture, is an important, and an honorable occupation. This is the consequence of this species of property being well established, and an interest created which requires, that every proprietor should understand something of an art on which not only his comfort, but his support must depend. Most of these men therefore are qualified to direct the labours of their cultivators, and many of the Nayrs hold the plough themselves. Some of the proprietors farm their estates to tenants, and live on the rent; but most of them reserve some land in their own hands, and others have larger farms. The order and arrangement are not different from what we find in Europe. The size of the farms vary from one plough to 20. The Chirmirs perform a great part of the labour, but not the whole. Every estate has some Chirmirs attached to it. Some of the largest farms have from 50 to 100 Chirmirs, men, women and children. The oxen and cows are each about the same number as the slaves. Such farmers have also a number of hired servants, and very often a Karrigar or superintendent, who directs the labour of the rest, but does not work himself. The duty and character of this person resembles that of our Bailiff or Overseer.

These establishments are respectable, they convey an air of wealth and comfort, seldom seen among the peasantry in other parts of India. They recall to mind the proprietors and farmers of our own country.[20]

I do not mean to enter into all the details of Malabar Husbandry which will be best explained by the annexed table.(Omitted here.—*Editor*) A general description however is necessary. The land is generally well fenced and subdivided. The long, narrow and beautiful vallies form indeed natural divisions. The artificial divisions are commonly small, for the convenience of irrigation, and to mark the shares of individuals. The fields, or divisions, are formed into neat and oblong squares. In preparing the ground for rice, they plough twice, and even thrice according to circumstances, before they sow. The first operation is to surround the field with banks, and then to overflow it. The banks are about two feet broad, and raised rather more perhaps above the level of the ground. They serve as well as to keep in the water, as footpaths. Without them the people would be obliged to wade through mud and water, either when they wanted to inspect their fields, or in prosecution of many of their necessary labours. The depth of water in a rice field depends on the particular situation; it varies from six inches to a foot, and even a foot and a half.

In some cases a rice field is kept under water until the second ploughing. It is then almost an equal mixture of mud and water. The cattle in this state are of as much use as the plough. The water first rots the weeds and grass, and afterwards nourishes the plant. Water is the most necessary agent of vegetation. The seed corn is sometimes, but not always, soaked for 20 or 30 hours in water. It is then laid in a heap for several days; in this state it shoots and grows. The ground is finally prepared, either for sowing or planting, by dragging a plank over its surface by cattle. This levels and smooths the ground; and mingles every thing together. The water is allowed to run out before the seed is sown. It is then sown broadcast, or planted.

The planting or transplanting is performed in this manner. When the rice plants appear a few inches above the ground, they are taken up, tied in little bundles, and again put into the same ground, or removed to another field as may be necessary or convenient. This work is performed by the hand, and very commonly by women. The field is again overflowed and kept so until the grain is nearly ripe. The banks are then finally cut and the water escapes.

Generally speaking about three parts of the stalk of the plant remains above the water. The process in Bengal is very different from this.

There is cultivated in Malabar upwards of fifty kinds of rice. They are each distinguished by a separate name, by some peculiar quality, and different modes of cultivation are of course pursued. Some kinds grow on the hills and do not require irrigation. These are called Poonum and Modun. They are much longer in ripening than the usual cultivation. There is one species which is propagated by cuttings, a mode which I never heard of except in Malabar. An account of all the different kinds of rice cultivated in this province, will be found in the tables, at the end of this article.(Omitted here.—*Editor*)

The southern parts of Malabar are more fertile than the northern parts. The former in many situations is capable of producing three crops a year, or rather in 14 months, while very few places in the latter produce two, and in the Wynaad above the Ghats only one crop is procured.[21]

Some kinds of rice are found to ripen earlier than others, and to thrive in different degrees of moisture: they have hence not all the same seasons of reaping and sowing. They have their particular situations and soil. In the husbandry of Malabar the skill of the Kudian or cultivator, is therefore exerted, to discover the grounds best adapted to each. He has discovered that it is useful to change his seed: but one crop of rice follows another in eternal succession. The hill rice requires 8 or 9 months to ripen, and that on the inundated fields but three. The hill crop is more precarious, as it depends entirely on a favourable season of rain. In the upper lands they observe a regular rotation. It is in these situations where they grow their green crops: these are confined to a few kinds of pulse, and gingelly or ellu. In these hills they plough for some kinds of culture as often as seven times. But rice is the great article of cultivation in Malabar: they also cultivate, the sugar cane and dholl; and the climate would probably answer for all the tropical plants.

The superiority of production is vastly of warm climates. The whole year is fertile. The great drawback is the want of moisture and rain. When the regular supply of water fails, nothing can prevent a sterile harvest. Malabar is however rarely, if ever, exposed to this calamity. In this respect it has the advantage of almost every other part of India. In Malabar the cultivation of rice may be seen at all seasons of the year, and at the same time in every stage of its progress. Nothing can be more rich and interesting than this picture. The appearance of the country is beautiful and various. At one view may be seen the operation of sowing or transplanting in one field: in another the plant shooting above the water, and elsewhere it is quite ripe.

The people of Malabar have two sorts of ploughs; one is heavier than the other, but they have both the same simple construction. The Malabar ploughs have only one handle. It is curious that this is the case also with the plough of the south of France, that of Suffolk, and the Shetland Islands. This is one of those resemblances which belongs to taste and fancy, rather than to imitation. We may be surprised that people who live so remote from each other, and under such different circumstances, should have come to adopt the same apparently feeble and inconvenient structure of this indispensable instrument. We can only answer, that they must have been led to it by some practical or imaginary advantage, and that habit has made it convenient.

The obstacles to cultivation here are few. A farmer in Europe would follow the same principle. His ploughs are constructed to suit the nature of the soil, and the work they have to perform. The same sort of ploughing that is necessary for a wheat crop, would not be proper in the cultivation of rice. Husbandry is never disgraced in Malabar by yoking together animals of a different species. Moses forbids the Israelites to plough with an ox and an ass together as a lesson of moral instruction: 'Be not unequally yoked, etc.'

The Malabar plough is dragged by a pair of oxen, and driven by one man. The Husbandman repairs to the field before the dawn of day and leaves it at sunset. He takes his repast, and rest under the shade of a tree. His wife and children accompany him.

Like the Hindoos, the Greeks and the Egyptians had no Coulter to their plough. Such also are those used in the south of France, and in general in all hot countries.[22] It has been from this conjecture that tillage was invented by those nations which inhabited a light and loose soil.[23]

The ancients, also like the people of Asia, made use only of oxen in tillage. The Greeks who speak of Bacchus as the inventor of agriculture, say he was the first that brought oxen out of India into Europe.[24] We may infer from this that they considered the art of cultivating the ground, to have come from India.

The corn is reaped by the sickle, men and women engaging in this labour. It is not allowed to remain long in the straw, and is separated in the field by the ancient, and simple method of treading it out by oxen. It is evident that this method could only answer in a country, where the climate was regular, and the sun powerful. The process of thrashing, drying and winnowing, are all finished together. The grain is carried home in baskets, or in bags, which is performed by men and bullocks. It is then put into larger baskets, plastered in the inside with cow-dung, to exclude the air, and to protect the corn from vermin. It is lastly deposited in a granary. In some other parts of India the baskets are buried in the earth, but this can only take place in a dry soil and one which does not abound in springs, which is not the case in Malabar.

In Malabar the natives make use of no wheel carriages. All the labour of conveyance is performed by bullocks and men. This is the case also in Persia and among the Afghans.[25] What causes could have prevented these nations from adopting one of the most useful arts? They must have been acquainted with its advantages by their neighhours, who carry on their inland commerce on carts; and chariots seem to have been part of the warlike machinery of rude people. The nature of the country, and the rice cultivation of Malabar, are unfavourable to carriages; but these obstacles could not operate in every situation, and could not be very difficult to overcome.

It is evident that the nature of the soil, must have great influence in determining the operations of the Husbandman. The fertility of land in India, depends on the access to water, and the regularity of the periodical rains, as much as on the fruitfulness of the soil. These supplies are particularly requisite in a country where the soil is hard and cohesive during the half of the year, except on the sea-shore where it is sandy.

In Malabar the soil is classed in point of productiveness under three sorts. They form their judgment of its quality by the following experiments and process.

The first sort is called Pasheemah Koor. This is the highest quality of soil, and consists of rich clay. In order to discover its relative properties, they dig a pit about a yard deep, and as much wide. If the soil is of the kind in question, the hole will not receive, the earth that was dug out of it, when returned back, by a considerable quantity. The natives assure us that the hole cannot be made to contain the whole of the earth even by pressure, as by stamping with the foot, and beating it down with a spade, or a piece of wood. This earth is very adhesive and unctuous. It sticks when handled to the fingers like grease; hence, its name, Pashee signifies paste or grease, and Koor, kind relatively considered.

The second is called Rashee Pasheemah Koor; ground of an equal or middling sort. To determine its quality, they dig a hole as before; but on returning the earth into the hole it will be exactly filled, and appear level with the rest of the field. This earth will also stick to the fingers, but not so adhesively as the first. It has therefore the epithet Rashee, which implies a mixture of earth and sand, which are united with the rich clay of the former soil.

The third kind of soil is simply called Rashee Koor, a term descriptive of its poverty. This is very poor light land. The earth in this experiment, when returned into the hole, will not fill the pit. This soil consists merely of loose sand.

It is curious and not a little interesting that these experiments correspond exactly with those of Lord Kairns in his theory of fertilising soils. He says: 'Some earths fill not the hole out of which they were dug: some do more than fill it. Poverty occasions the former; the pores are diminished by handling which makes it more compact. Solidity occasions the latter; clay swells by stirring and continues so, till its former solidity be restored by the power of gravity.'[26] It is equally remarkable that these experiments of the Malabar farmer, should correspond with Sir H. Davy's philosophical observation; 'that the fertility of soils is in proportion to their power of absorbing moisture'. 'Alumina, or pure clay,' he says, 'is the earth to which soils owe their fertility.' He adds: 'Soil with too great a proportion of sand is absolutely sterile.'[27]

It is certainly a singular circumstance, that this theory, the discovery of science, should be understood and acted upon by the Hindoo peasants.

It has been observed that although the Hindoos live chiefly on vegetable diet, they cultivate few horticultural plants, and pay little attention to gardening. In this climate the whole country may be called a garden, and nature furnishes many things spontaneously which elsewhere can only be obtained by the most laborious exertions. Their abstemious habits are easily satisfied, and a small spot is sufficient to raise all the plants which they require: These are confined to spinnage and some of the Brassica tribe. The chilly or red pepper, some badjee or spinnage, some cucumbers and pumpkins, and a few flowers, compose the principal articles in their little gardens. This is merely because these articles are daily and hourly wanted for their culinary purpose, and to save the trouble of going into the fields for them. Cucumbers, melons, pumpkins, the brinjal, bendy, a variety of beans, or pulse, and yam, are cultivated on a more extensive scale. These are reared in the common fields, and as a regular crop, particularly the yam, which attains great perfection in Malabar. But corn and fruit trees are the great objects of attention. The soil of the Malabar vallies is alluvial earth.

They study with particular care the changes of weather and the seasons. At the full and new moon, rain and dew fall more copiously and the Husbandman regulates many of his operations by the phases of this planet.

The stars are consulted and the astrologer opens his books. But it is not altogether an idle superstition, that plants ripen and grow faster under some of these changes. It was probably with more reason, than we are aware of, that the stars were formerly consulted even in Europe, before the farmer committed his seed to the ground. It was strictly recommended that they should not begin to sow before the setting of the stars.[28] They had in Europe, as well as in India, astrologers, to foretell the seasons, and to write horoscopes.

Bacon says in his Natural History, that seeds, hair, nails, hedges, and herbs, will grow soonest, if set or cut in the increase of the moon.

The Malabars are attached, as we have seen, to a country life. The Nayrs and Namboories live in houses, at a distance from each other. Segregation is the consequence of a rural society. This is the only way in which groves can be enjoyed, and labour carried on. 'When there was not room enough for their herds to feed, they by consent separated and enlarged their pasture.'[29] It is to this mode of life, and the easy circumstances, that usually attend it, that we are to ascribe the neatness and cleanness of the houses and villages of Malabar. The same circumstances, produce the same effect on their persons. It is not a mere freedom from dirt or filth, but a neatness of dress, and a cleanliness of person from head to heel. The same neatness may be seen through every part of the country. It is displayed in their agriculture. It is not fine houses, but nature and the broad Canopy of Heaven, that they contemplate with delight. They have everywhere under their eye, magnificent and fertile landscapes. These they improve and ornament by planting fruit or umbrageous trees, which refresh the traveller.

Note

1. Goguet vol.I p.85.
2. *Edinburgh Review* No. 67, p. 201.
3. This species of forced service prevails in all despotic Governments. Service against the will was known even in ancient Greece. It was called forced service.
4. See a Journal for 1820, 387
5. See Figures of the Plough and of all these instruments from 55 to 64. [Not included in original.—*Editor*]
6. 'When I spoke of three ploughings for sheni (sic) I scarcely allowed enough: they ought to have four or even five, especially if the land be at all heavy.' Burke's letters.
7. See a very intelligent agricultural memorandum from Captain A. Robertson.
8. Lucerne, I believe.
9. The history of this experiment must be found in some of the recent dispatches from Bombay. Has it been kept up, or is it discontinued?

In a season of great scarcity, Dr. Gilder cultivated Lucerne to a considerable extent, so much so as to warrant his considering that he could grow a sufficient quantity of it for the use of a Dragoon Regiment and he offered to engage to do so, but the offer was not accepted. I believe the constant use of green forage in quarters was considered objectionable. During the same season, he found carrots useful as a food for horses, and he supplied a considerable quantity of these and of his Lucerne to the Cavalry; but on the return of a favourable hay-harvest both were discontinued. At present many gentlemen cultivate Lucerne for their private sheds. If regularly watered and occasionally weeded, it bears cutting all the year through, once every 20 or 25 days, yielding a heavy crop. It will thus produce for several years. The natives of India have a grass of a very nutritious quality which is grown in the same way, and which may be cut every month. It was during the famine adverted to that it was brought to my notice by Bappoo Mheta, who got some of the seed from Ahmedabad. It succeeded very well, but I did not continue to grow it after hay became abundant. Lately in Khandeish during scarcity I sent to Guzerat for a quantity of the seed, but what was sent did not come. I cannot at present recollect the name of this grass, but it is well known in Guzerat.

10. In the Deccan the cultivation is as good as that in Guzerat, and the people are in every respect as active and as intelligent as well as moral and independent as those of that country. I doubt whether the Bengallers are really as depraved as they are said to be.

11. Col. Wilk's History vol.1. p.209. The whole of the note is instructive. It is the result of observation and study on the spot. It shows that the practice of the Indian farmer is founded on the most enlightened principle of modern farming.

12. Lord Kairns.

13. Rice lands are always manured to the utmost of the zamers(sic) abilities. They spare no expense in this. In the Concan they cover the fields with a thick layer of leaves, brush wood and even hay and set fire to it. Even in Bombay rice fields are manured by using hay for this purpose. This manure is not got without considerable trouble and expense, and more than this, nothing shows more the care and skill of the cultivator.

14. Which is done for fuel.

15. Khandiesh abounds with these and many of them cost vast sums of money. In the late disturbed state of that province for many years, many of them have gone to ruin, but the Government of Bombay is repairing them at a great expense.

16. We may suppose that this example produced this effect, as the character of the Mohammedans was more mild and tolerating in India and their conduct more directed to improvement and civilisation than in any other country where they have established themselves.

17. This still is the case in many parts of India as it is in Egypt. See Brace's Travels and those of Dr Slater.

18. Mr. Colebrooke's Statement of Bengal Husbandry. The extraordinary fertility of the soil in Bengal is probably unfavourable to the Hindoo Husbandman. He has always almost a super abundance. In some parts of Poland the natural fecundity of the land produces spontaneous crops of wheat. The consequence is, a most ignorant and unskillful system of husbandry. In Scotland again which owes little to nature, and where nothing is obtained without excessive labour, agriculture is indebted for some of the finest improvements.

19. Extract of a letter dated 9th April 1820. This process in fact is a species of fallow.

20. For an account of Malabar farms see Dr Buchanan for some curious and interesting circumstances. A judicious and short extract might be made. Even the Dr Buchanan speaks favourably of Malabar agriculture: this country was not in a state of oppression: here the Government did not require all the rent.

21. The contrast between the fertility of Malabar and the most fertile part of India was once strongly brought to my attention in a conversation with a native officer who was on detachment with me in the interior of

southern Malabar, and who had come from the upper provinces of Bengal. His name was Baulday Sing, a name which I still have a pleasure in remembering. He was a very handsome man upwards of six feet high, and a brave soldier. Baulday Sing according to the character of his countrymen was describing in rather glowing colours the natural fertility of his native country, its beauty and all the happiness he enjoyed there. 'Then Baulday, what motive induced you to leave that fine country and to relinquish all these pleasures?' The suddenness of the question perhaps at first surprised him, but after a moment's pause he replied, 'I left my country to see strange and wonderful things, and that I might have the pleasure of relating them on my return.' 'What can you have to tell from Malabar?' 'I shall be able to tell,' said Baulday with an emphasis which showed the strength of the impression on his mind, 'that I have been in a country which yields three crops of rice in a year!' But Baulday never returned to his country.

22. Goguet vol.1, p.91.

23. Ibid.

24. Ibid.

25. Mr. Elphinstone in his account of Cabool, I think, states this fact; but it should be examined which I have not at present an opportunity of doing by referring to his interesting work.

26. Gentleman Farmer, p.367.

27. Sir Humphrey Davy's Chemistry.

28. Brown's Vulgar Errors—Columella.

29. Lock.

XIII

ON THE DRILL HUSBANDRY OF SOUTHERN INDIA

(By Captain Thos Halcott (dated 31st December, 1795 and 10th January, 1796).)

Until lately I imagined the Drill plough to be a modern European invention; but a short time ago, riding over a field, I observed a Drill plough at work, very simple in its construction, which upon inquiry I find is in general use here, and has been so from time immemorial. This led me to make some further inquiries into their mode of Husbandry here, and I find the Drill Husbandry is universally practised in the Innacondah district, in the culture of all grains, except horse-grain, and is also used in the culture of tobacco, cotton, and the castor-oil plant. In the practice of this Husbandry they have two other ploughs in use here, exclusive of the Drill plough, and the common plough: one of these has a horizontal share, and immediately follows the Drill plough at work. It is set into the earth about the depth of seven or eight inches, and passes under three drills at once. It operates by agitating the earth so as to make the sides of the drills fall in, and cover the seed-grain, which it does so effectually as scarcely to leave any traces of a drill. The other plough alluded to, is used after the corn is about eight or ten inches high. It cuts up the weeds between three drills at once, and earths-up the roots of the corn at the same time. I cannot, by writing, give you an adequate description of the three ploughs, but will send you a set of them, if you wish it, accompanied by a man who has been in the practice of working them.

I have some reason to think this Drill plough, simple as it is, possesses an advantage that the patent Drill plough does not; for I remember reading in some publication, that the patent Drill plough was defective in not dropping the grain equally; this plough has no defect of that kind. It has three teeth about eighteen inches long, and ten inches asunder; through the upper end of each tooth, near the back, is inserted a hollow bamboo of an inch in diameter, and about three feet in length, these three bamboos are set upright, and their upper ends are brought nearly together, in the form of a triangle, and inserted through the bottom of a wooden cup. This apparatus is supported and made steady by cords, in the way of shrouds, which lead to different parts of the plough.

In working the plough, the cup is not filled with grain, but is fed by hand; this labour is performed by a woman, who walks on the left side of the plough with a bag or large pocket of grain before her, her right arm stretched out, and her wrist resting on the edge of the cup; her hand is filled with grain, and by moving her fingers she lets drop into the cup as much grain as supplies the three drills in due proportion. When the grain in her right hand is nearly expended, she fills it again from her left hand, observing never to take her right hand from the cup, while the plough is in motion, as that would leave a vacant space in the field. The Drill plough, which drops the grain by some piece of mechanism, will probably never sow a field so equally as is done in this way; and here is a remedy for the defect complained of in the English Drill plough. Whether the expense of two persons to work this plough, may or may not make against its being introduced into England, in preference to that now in use, I shall leave to be determined by those who are better acquainted with the subject; yet when it is considered, that supplying the cup is a labour performed by women, and how soon an acre is sown in this way, perhaps it might not be rejected on account of the additional expense, which would be but trifling. The first cost of a plough of this kind would be but a few shillings, whereas the patent Drill plough is an expensive machine.

A gentleman who is now here on a visit, informs me that his grandfather, who farms part of his own estate, practices the Drill Husbandry, but found the Drill plough dropped the grain so unequally, that he laid it aside; and now, from a conviction of the superiority of the Drill Husbandry, uses a drill roll, which has a number of pegs upon it, and makes holes in straight lines, into which the seed-grain is dropped by hand. This is a tedious way, and he informs me has also its defects, as it is done by children whose hands, in the cold season when wheat is sown, are apt to get numb, and they often drop too many grains into each hole. However, many prefer this method to the Drill plough at present in use. Whether the plough with a horizontal share for covering in the drills is in use in England, I know not; if not, it will be an acquisition to those who practice the Drill Husbandry. I am also equally uninformed, whether the instrument used here for cutting up the weeds between the drills is known in England. It is simply three small mamoties set upon three teeth, placed at the same distance from each other as the teeth of the Drill plough.

By my sending you these instruments, you will have a better idea of them than I can convey in writing; but as I am informed by a man from the Carnatic, that the Drill Husbandry is used in some parts of it to the westward, you may possibly have seen these ploughs, and in that case it will be unnecessary.

You correspond occasionally with the Board of Agriculture; should you think these instruments would be useful in the Drill Husbandry at home, I will thank you to forward the set (The set of three ploughs was duly received by the Board of Agriculture in London and sketches of them were included (along with the above narrative) in the first volume of 'Communications to the Board of Agriculture' (1797). These sketches are reproduced here as Figures I and II. —*Editor.*) I shall send you, to them. If, however, you should find that these instruments have been already described in any publication, and that it is a matter known among Europeans, that the Drill Husbandry has long been practiced in this country, it will of course be worth no farther attention. But so far as I know at present, I am the first European that ever noticed it, for although it has been practiced under the eyes of every body in the Guntoor Circar, no one that I mentioned it to ever observed it before, nor did I observe it myself till lately.

Jurrecondah, 10th January, 1796.

This is not a rice country, but a Carnatic man, whose family practices the Drill Husbandry somewhere to the westward of Madras, informs me, that it is there used in the culture of rice, and is vastly superior to the method generally used of making a seed bed, and transplanting it by hand.

At the commencement of the rains, he says, the paddy-field, after being well ploughed with the common plough, is sown by the drill plough, and left to the natural rains till it gets into ear, and it is then, and not till then, flooded by art; so there is not only a great saving of labour, but of water, which in years when the rains are scanty, is a more material saving, than even that of labour.

He informed me, that the Drill Husbandry to the westward of Madras was only partially used, and that, chiefly by the wealthiest and most intelligent of the Ryots. I asked him, how it could happen that the poorer sort did not avail themselves of so obvious an advantage? He said that the people were poor and ignorant, and it could not be attempted by those who had less than three yoke of stout oxen, one for the Drill plough, another for the horizontal plough which follows, and allowance made for the accidental lameness and sickness of cattle; the weaker are not able in a miry soil, such as paddy-field, to draw the plough so straight as is required, and buffaloes are seldom so manageable as to plough very straight; these, said he, are the reasons why the Drill Husbandry is not more generally adopted in the culture of rice, for all agree in this, that it saves a great expense of labour and of water.

Every thing in this district, except horse-grain, is cultivated by the Drill Husbandry; I may mention hemp in addition to the articles I before enumerated. Of its superiority in the culture of cotton, I had a convincing proof the other day, when I saw more weeds cut up by the mamoty plough before described, in an hour, than could have been done by hand by many coolies, in a whole day.

This cotton was of a dwarf species, and sown by the Drill plough; I saw another field of a different kind, the drills about thirty inches asunder; this I understand was sown by hand; the drills were made by the common plough. In the same way is sown the castor-oil seed, the drills about a yard asunder; in short, the Drill Husbandry is practiced by every Ryot in this district, without a single exception.

XIV

IRON WORKS AT RAMANAKAPETTAH

(By Dr. Benjamin Heyne (1st September 1795).)

Owing to that natural impulse which I feel of attending closely to such objects as have once been voluntarily taken in hand my mind has frequently recurred to my last report of the Letchemporam Iron Works; thinking that an attention to this branch of science, or rather Indian manufacture, may prove of essential benefit; which has induced me, to avail myself of the first opportunity that offered, of seeing works of the same kind, at other places; whilst I also entertained the hopes, of being thereby enabled to point out a place where works of that nature, of consequence, might be erected, with a full prospect of success, if it should be thought advisable to establish them in this country.

It so happened also that my excursion to the diamond mines of Mallavilly, proved favourable in this respect, for I learned on the road, that many places in the Noozeed Zemindary, furnished iron for common use; and the nearest place to the Mallavilly, was, for obvious reasons, preferred to others more distant. This was Ramanakapettah, a village 3 *coss* from Noozeed to the northward. The way to it from thence, is mostly through a jungle the greater part of which, lies, in the vicinity of some fine large tanks, from which in favourable seasons a very sufficient quantity of water might be furnished to produce a very plentiful harvest of paddy, were there hands enough for cultivation.

A great number of palmera trees growing in the thickest part of the jungle, sufficiently evince the existence of former villages and greater population.

The soil in the high ground, both cultivated, and uncultivated, mixed with gravel and clay, often of the kind which the Gentoos call Rawada, i.e. clay mixed with gravel.

Ramanakapettah, has much better buildings than Noozeed. The streets are very broad, and the houses, in the fashion of the natives, good and large. A Choultry, one of the best I have seen in the Circars is in the middle of the village, and a fine large tank near it, to the south affords one of the greatest comforts to the inhabitants. The nearest of the hills, are to the eastward; and forms a kind of amphitheatre, opening to the southward. In this lies the village and all the iron mines. Before the famine,(The reference is evidently to the famine of 1790-2 which reduced the population of the Noozeed Zemindary from 1,00,374 in 1786 to 57,865 at the end of 1793. (See report from Noozeed Committee: Proceedings, Madras Board of Revenue, 16.1.1794),—*Editor.*) there were besides 40 smelting furnaces, a great number of silver and copper smiths, here, who were in a state of affluence; but their survivors are now poor and in a wretched situation.

The iron mines are to the northward, a mile from the village and half a mile from the hills; from whence they bring the ore, in baskets, to the furnaces that are close to the village. In former times, they seem to have found the ore nearer to it. The smelters do not, here, as at Letchemporam, themselves, work in the mines, nor do they burn their coals, but rather buy both articles, the former in baskets from the mines and the latter from labourers who bring them from the hills.

The ore runs in beds or layers, immediately under the first stratum of the ground (which consists as before said of gravel and sand) and is scarcely one and a half foot in thickness. These layers are of a small extent, and of all dimensions; seldom broader than two feet, and from two to four in thickness. The ore is very easily worked, as it consists of small round stones, which are in no way connected. It by no means derives its fusibility from the admixture of chunam (or lime) as does that at Letchemporam. Neither is any addition of other earths used, in order to promote that quality. Although it does not partake of the nature of any of the common iron ores in Europe, it comes nearest, to the haematites. It has for its properties, that of sticking on its fracture to the lips, when moistened; and is of so fine a grain, that it admits of being made into a very fine powder, which seems slightly to effervesce with acids. It appears to have very little of a silicious admixture, except some stones that consist entirely of a silicious aggregate cemented together with occhreacious clay, but these the smelters pick out as useless. Having no lodestone I cannot say whether the iron in it is in a state attachable by it; but might I be allowed to guess, I think it must exist in a semi-reguline state, which I find to my great satisfaction is admitted by some learned mineralogists which is an opinion that I merely offered as my own in my report on the Letchemporam works.

Of the outward appearance of the mines I can say nothing, but that from a distance they bear, a striking resemblance to fox's holes. Their furnaces which were forty in number before the famine, are now reduced to ten, and are in no ways different from those of Letchemporam; nor does their mode of proceeding, differ in any essential degree.

The coals they use in common, are from Mimosa Sundra of Dr Roxburgh, (and Sandra of the Gentoos) which I am told grows on the nearest hills in abundance. They however find any other firm wood answer their purpose as well. Four gunny bags of coals is sold for one rupee and two annas, it is the quantity required for every smelting; For the ore, they pay one *Dubb* per basket, of which 12 are reckoned sufficient for one smelting; the ore is not reduced into smaller pieces, but thrown into the furnace just as it is dug up. The scorias are let out only twice, the last time just before they cease working the bellows.

With respect to the subsequent necessary addition of coal and ore, after the smelting is begun, and the first article consumed, they proceed more rationally than at Letchemporam; by discontinuing to throw these articles into the furnace, more than an hour before they remove the obtained metal.

The whole produce of 1 maund, is sold for 2 rupees after it has been heated and hammered, to separate the scoria with which it abounds. For its more ready disposal, they make it into small pieces, weighing 2 pounds. It is still however in a very crude state, but of a soft nature, and so the more easily applied to common purposes. There is a greater demand for it than they can possibly supply though the greatest part of the year they are employed in the smelting business.

There is no doubt, but that, this place will be found eminently deserving of notice, in the event of adopting any large works of this kind, in the Company's possessions. The ore can be procured in any quantity that is required, and probably at a less expense than anywhere else. The nearest hills afford wood for coals in plenty; and what is of still more consequence, there are many people who would be glad to be employed in a business, which, under their own contracted management, (The contracted management seems to have resulted from the disruption caused by the famine. The 'constant dread', the ironmakers lived under, mentioned by Dr Heyne in another account, 'lest they should be pressed for the purpose of carrying burdens for strangers [i.e., the British army and civil personnel] from one village to another, a thing which often happens in the very season when it is in their power to employ their time to most advantage to themselves', also seems to have added to such contracted management.—*Editor.*) has hitherto afforded but a scanty subsistence.

Every furnace requires at present, nine men, who are chiefly employed in working the bellows, an operation might be soon and easily improved by a proper mechanical apparatus, through the medium of fire or water, or both, by which the number of hands would be easily reduced.

Besides this village I am told there are six more in the Noozeed country and in which iron is constantly fabricated, of which however I do not as yet know any thing more than their names. But as soon as opportunities offer to me of examining these, or any other works of the same nature, I shall not fail to give the subject the best attention in my power; so as to enable me to furnish any further information which my limited knowledge may enable me to offer.

XV

THE MODE OF MANUFACTURING IRON IN CENTRAL INDIA

(By Major James Franklin, Bengal Army, F.R.S., M.R.A.S., (circa 1829).)

An opportunity afforded by the Government of Bengal in 1828-9, having enabled me to examine several iron mines in the central part of India, and to make experiments on the Indian mode of manufacturing iron, I beg to offer the result of my observations to the hon'ble court of directors of the East India Company and I desire more particularly to draw attention to the simple forge and refinery, by means of which the process of smelting and decarbonisation is performed.

These mines are situated in the districts of *Jabalpur, Baragaon, Panna, Katola,* and *Sagur*, in the bed of a great central channel, which intersects the heart of India; and their localities are as follows.

IRON MINES OF JABALPUR

In the district of Jabalpur the best mines are at *Aggeriya, Gatna, Baila, Magaila, Jowli, Imliya,* and *Baragaon*, and the ore (No.12) of the first four, is micaceous, resembling in its less oxidated condition Iron Glance; at *Aggeriya, Gatna* and *Baila* it is interstratified with *sandstone*, and exploited from a small hill capped with *laterite;*[1] but at the other places, it is in fragments, buried in ferruginous gravelly clay, about five or six feet below the surface; it melts easily; and on actual experiment, 170 sers of ore, smelted by 140 of charcoal, produced 70 sers of crude iron *en masset*, in ten hours, which is equal to 40 per cent; the ore of Magaila is less oxidated than the others; it slightly affects the needle when heated, and sometimes crystallises; its streak is cherry red, and from its hardness, it is principally smelted for steel.

The same kind of ore (No.13) still less oxidated, is in great abundance, interstratified with *quartz sandstone*, and forms mountain masses, exhibiting a variety or contortions, as in the Lori hills; in this state, it is shining, splendent, and even glittering, but it is never smelted, because there is better ore on the same spot.

The ore of *Jowli* (No.15) is the *ochrey* variety of red oxide, it is almost a pure oxide, and affords a good pigment; it soils the fingers deeply, and its stain on cloth is difficult to wash out; it melts more easily than the former, and on actual experiment 185 sers, smelted by 165 of charcoal, produced 77 sers of crude iron *en masset,* in something less than ten hours, which is nearly 42 per cent; it is associated with a compact variety, (No.16 and 17) which appears to contain *specular* ore, from the blood red colour reflected from its small crystals when fresh from the mine; it lies near the border of a range of trap hills, and is clearly a deposit, or a vein, in the fissure of a rock resembling *hornstone* (No.18) which has probably been thus changed by contact with the trap.

South of the river Nermada near the village of *Dangrai*, the micaceous variety (No.19) is found in thicker laminae, interstratified with *quartz sandstone*, which separates into rhomboids; it is extracted by breaking the rock, but its iron is bad, and as it scarcely repays the expense and labour, it is rarely smelted.

The general character of the ore of these mines appears to range in the class, which the Comte de Bournon denominates *fer oxyde au maximum*; the *micaceous* kind is at times so highly oxidated, that it is nearly pulverulent, and the *ochrey* variety is almost a pure oxide; the compact species is rare, and fibrous *hematite* (No.19) is still more scarce; in every instance it is found near the surface, and all the varieties, except that of Magaila, yield excellent malleable iron.

IRON MINES OF BARAGAON, LAMTERA & EMLIYA

The mines of *Baragaon, Lamtera* and *Emliya* in the pergunnah of Belhari, are situated on the north side of the valley, and it is remarkable that near this ridge, there is a change in the nature of the ore; it lies near the surface embedded in ferruginous sandy clay, and is unconnected with any rock, though the subjacent stratum is *sandstone*; in the two first of these mines, the ore is granular, argillaceous (No.20) in globular grains, about the size of a pea, which are cemented together into a solid mass, by ferruginous clay; the other is the lenticular variety of the same kind of ore (No.21) differing from the former in the size and flatness of its pieces; but its cement is of the same nature, only less hard, and the nodules of ore being more easily separated, appears to give it a superiority over that of *Baragaon*, the grains of which not being divisible, its ore is perhaps affected by some vitiating property contained in the cement, the metal being very brittle.

IRON MINES OF THE DISTRICT OF PANNA

The best mines of the Panna district are near Brijpur, the ore is common argillaceous lying in a thin stratum, between beds of *reddle* and yellow earth (No.22) the former below, and the other above it; both these earths adhere slightly to the tongue, and fall to pieces in water, but do not form a paste, the former dissolves rapidly, the latter after a slight ebullition falls first in flakes, and finally into powder; on calcination the yellow earth assumes a lively colour—like English red, and they both would form useful pigments; the ore yields bad and brittle iron; but there is another kind of red ore exploited and smelted at the village of *Simmeriya* which produces better metal.

IRON MINES OF THE DISTRICT OF KATOLA

The district of *Panna* produces diamonds, and the tract in which they are found, borders on the iron mines of Katola; the Ken river being the boundary between them; and though this circumstance is foreign to my present object, it is at least curious, as it may perhaps serve to show, the connection, between the gem and ferruginous matter: the iron mines of Katola are in a cluster[2] of hills which extend between the Ken and Dessan rivers, and the ore, with one exception only, consists of varieties of the red oxide, its changes being from the most compact form, having a metallic lustre, into common argillaceous, according to the quantum of clay, associated with it; the nature of which will be best understood from the specimens which are sent herewith.

Commencing from the *Ken* river and proceeding westward, the first mine is in the *Pandua hill* (No.23) but as it is nearly exhausted, I pass on to those of *Amrownia, Majgaon*, and *Motehi*; the ore of the first and second of these places (No.24) resembles that of *Deora* to be described hereafter, and that of the third (No.25) is in the form of water worn pebbles of various sizes, which are embedded in ferruginous sandy clay; the mines are situated near the foot of the Bindachel hills which are here composed of *sandstone conglomerate*, and capped with the newer horizontal *sandstone*, which everywhere is uppermost in this range; the iron stone pebbles are about fifteen feet below the surface, and are intermixed with blocks, and fragments of *sandstone*, the whole bearing evident marks of attrition; the metal made from them is not esteemed.

Next in succession still proceeding westward, are the mines of *Deora*, the ore of which (No.26) is of two kinds, one compact with a metallic lustre, and the other containing a large portion of clay; the second of these is found high up in the hills, and in a vein, or deposit, immediately below the upper *sandstone*; it yields very good malleable iron, not brittle like that of *Motehi*, but such as may be drawn into thin plates without bursting.

About five miles farther west are the mines of Kotah, but the iron is bad, and I therefore pass on to the more celebrated mines of this district, viz. those of *Saigerh* and *Chandrapura*, which are situated on the crest of the *Bindachel* range, and near the point where the waters separate; in this respect they correspond with the mines of *Baragaon* and *Emliya* before mentioned, and like them also, the ore (No.27 and 28) differs both in nature and character, from all the other ores of this district; it lies in a thin vein, in ferruginous sandy, or gravelly clay—very near the surface; and its streak, in some specimens is yellow, in others yellowish brown, whilst that of all the other ores is red; in general appearance, it somewhat resembles the ore of *Baragaon*, but the grains are not so perfectly formed; its iron is excellent, possessing tenacity and malleability in a high degree far excelling every other description of iron produced in this district; *coal shale* crops out in its neighbourhood, and in all probability *coal* exists near the mines, but with all these advantages, the want of water carriage will ever prevent them from becoming more valuable than they now are.

West of the above, are the mines of *Piperiya, Rejkoi* and *Kanjra*, the ore of the former (No.29) is something like that of *Saigerh*, and is usually mixed with the other two, to correct them; that of *Rejkoi* (No.30) being nearly compact, and that of *Kanjra* (No.31) containing more argile.

Next in succession, still proceeding westward, is the *Chapar* hills near the town of *Bajna* which abounds in iron, and viewed at a distance it appears as if blackened by fire; its base is surrounded by protrusions of greenstone, and its stratification appeared to me to exhibit marks of derangement; at the foot of it is a cavern, and a chasm, filled with water to the depth of 220 feet, and an isolated fragment in its neighbourhood seems to have been separated from its parent mountain by violence; these appearances are very striking, and furnish grounds for speculation, but my present business is with its mines, which are situated at *Bajna, Keritanga,* and *Suka*, near to *Surajpura*; the ore of all which is nearly compact; the former (No.32) is on the summit of the hill, in large amorphous masses, the ore appearing to have penetrated the *sandstone* rock from a fissure of which it is excavated; the second (No.33) is a vein, in Syenite about half way up the hill, and the third (No.34) is in a small adjoining colline; there are some rounded pebbles of iron stone—dug out of ferruginous clay near the village of *Bhojpura*—but they closely resemble those of Motehi and deserve no further notice.

The last of the mines of this district are at *Serwa, Hirapur, Tighora,* and *Mandewra*, the former of which is in a small colline near the village, and the ore (No.35) does not appear to deserve notice; that of the latter (No.36) is of the same kind; but the ore of Hirapur is rich, and its iron in great request; it is also cheaper, and being situated on a good road it is often purchased in its crude state, and carried elsewhere to refine.

There are other iron mines still further west which are situated in a similar cluster of hills between the Dessan and Jamni rivers, as at Weldana, Sarai, Dhori Sagar & c.—and towards the north-west iron abounds in every part of the hills from the mines of Katola to those of Gualior.

The Katola mines extend from the Ken to the Dessan rivers, and it is remarkable that the ore is confined to the cluster of hills, which lie between those points—never being found northwards of them—and only in a few instances, in the *sandstone* range south of them; this cluster, like the detached hills of *Callinger* and *Adjyegerh*, have all the appearance of having once formed part of the great range; their bases are all composed of Syenite or Syenitic Granite, and their caps of *sandstone*, and there is strong reason to conclude that the iron ore, here found, is an associate of the latter rock;—with one exception only—it consists, as I have stated above, of varieties of the red oxide, and in no instance have I found it affect the needle, unless it is heated, and even in that case, it is the compact variety alone, which does affect it slightly; its principal vitiating constituent is clay—which the native smelters do not manage well—and this perhaps is the reason of their obtaining so little produce; the refiners also have *bad usages* in their refining process in common with other parts of India, and though it cannot be said that they are unable to make good iron if they please, yet it is a fact that they have an objection to make it good for bazaar sale, except in the shape of culinary or other utensils which yield a better profit; their furnaces both large and small, and also their refineries, are exactly the same as those of *Tendukaira* in form, and the only difference in their process consists in keeping the wind tubes separate, as at Jabalpur.

IRON MINES OF THE SAGAR DISTRICT

From the *Katola* mines, I shall proceed up the *Hirapur* pass and ascend the tableland, which being entirely composed of *sandstone*, and *trap* rocks, is not rich in iron ore; there are however a few spots where it is found in the Sagur district, but as it is not wrought in any part, to an extent sufficient to attract notice, I pass on to the mines of Tendukaira.

TENDUKAIRA

The Tendukaira mines are situated in a more westwardly position of the same valley, as those of Jabalpur, and are about one mile and a half distant from the village Tendukaira; they are near a low range of hills composed of *stratified quartz rock* which evidently contains felspar, and this rock is the gangue (No.1) of the ore; at times it assumes the character of *hornstone*, and when contiguous to the ore, it is penetrated by numerous slender veins, which although filled with the oxide of iron are very different from ordinary dendritic appearances, as they are always in shoots, intersecting each other, and never arborescent, and it seems quite impossible that they could have been produced by infiltration.

The ore is never found near the surface as at *Jabalpur* but always about 30 feet below it, and in large masses, or beds, in cavities between the strata of the rock, which in some cases seems to have sustained violence; it is the brown *hydro-oxide*, both fibrous, and compact; but the former is by far the most prevailing; its general character, and appearance is opaque, and earthy, but when it has a metallic lustre, its fibres are beautifully fine, and constantly radiated; its most common form is irregular concentric lamellar, the lamellae of which are separated by a different colour, usually yellow, or yellowish brown; it is sometimes, though very rarely, crystallised, sometimes also it is mamillary and *botryoidal* but I have not met with any other imitative form; it contains manganese and silex, but sulphur is its principal vitiating constituent; its produce will be shown hereafter; but here it may be observed, that it yields most excellent malleable iron, fit for all uses, and also steel at nearly the same price as iron; there are five distinguishing names for it, which I shall give in the terms used by the native miners annexing thereto—their European synonyms: Gulkoo (No.2) includes all the waterworn pebbles which are embedded in diluvial gravel between the alluvium and the rock, under which the ore lies; it is a mixed and bad kind of ore.

Surma (No.4) is distinguished by its red appearance and is usually found mixed with the above, it perhaps contains arsenic and is always carefully picked out, and thrown away; *Peera* (No.3) or yellow ore, is the yellowish brown variety—always intermixed with the other kinds, and marking by its difference of colour their concentric lamellar form, it rarely occurs separate, its streak is yellow.

Kala (No.5) or black ore, is the compact earthy brown oxide, always dark coloured, generally approaching to black, sometimes but very rarely metallic (No.6) and crystallised (No.7), its streak is brown, and it is a very good kind of ore; *Devi Sahi* (No.8) or variegated, is the concentric lamellar variety (No.10 and 11) streaked with the yellow oxide; it has a fibrous tendency though opaque, but sometimes it is metallic as *Hemate* (No.9), and in this case its fibres are extremely fine, and of a silky lustre, its streak is yellowish brown and it is reckoned the best kind of ore, producing most abundantly, good malleable iron, and also tolerably good steel.

CHARCOAL

Charcoal is universally used in India for smelting iron, as the natives have no knowledge of coal, nor could they use it with their present refineries, because they are totally inadequate to the reduction of highly carbonised metal; they are fully aware of the effect of certain kinds of wood on the quality of iron and know from experience those which are best suited for their purpose; but as they cannot always obtain the trees they prefer—they use a mixture for their smelting process, excluding only such as are notoriously pernicious; but in their refineries they use exclusively *teak, mowa,* or *bamboo*, to the last of which they give the preference; in their preparation of it, they are expert from habit and no men are able to make better charcoal; they usually allow a month for drying the wood after felling, and their method of piling it, for burning, is in conical heaps; the remainder of the process being exactly similar to the practice of Europe.

FURNACES

Their smelting furnaces, though crude in appearance, are nevertheless very exact in their interior proportions, and it has often surprised me to see men who are unquestionably ignorant of their principle, construct them with precision, in so simple a manner; their unit of measure is the breadth of a middle sized man's finger; 24 of which constitute their large and 20 their small cubit; thus there is a constant ratio of 6 to 5 prevailing throughout these furnaces, nor is it of the least consequence, that their dimensions are larger or smaller, so long as all the parts are in the same proportion; the length of these measures is on an average 19.20 English inches for the large cubit, and 16 English inches for the small one.

As they have no standard measure their fingers, their span, and their arm are substituted by which a piece of stick is measured which they use in practice; neither is the division of the cubit necessary though the large one is supposed to be divided into six parts and the small one into five, of four fingers each—as the measurement is invariably ascertained by their fingers; the length of these parts is on an average 3.20 English inches.

Geometrical Construction of the Furnace

To construct the outlines of the furnace geometrically (Diagram I: fig 1 and 2) rule an indefinite line A.B. which suppose equal to a large cubit of 24 digits or 19.20 English inches, and divide it into 6 parts; at C erect a perpendicular, then from C to E set off 6 parts and it will mark the central point of the greatest bulge, and consequently the point of greatest heat; next, from E to F set off 6 more points, and it will mark the point of cremation; then again from F to G, 6 parts more, will mark the line, where it is necessary to recharge the furnace, after the burden has sunk thus low, and from G to D—two parts more; will give the perpendicular height of the furnace, in 20 parts equal to 5 feet 4 inches of English measure.

To complete the figure, rule lines parallel to the base, through the points E, F, G, and D, and from D, fig 1, set off three parts to the left hand for the top; bisect it at J, bisect also the bottom at H, draw H, J, right angled at K, and it will be the oblique axis of the furnace (fig 1. K—J) bisecting all the parallels corresponding with CD (fig 2)—then make the parallels AB six parts,—E six parts, F five parts, and D three parts; rule lines through all these points, and the geometrical outline will be completed, the sum of the parallels in parts, corresponding with those of the perpendicular.

Practical Construction of the Furnace

To construct it practically—dig a fosse 3 feet deep in the annexed form (Diagram 3, fig 2) the semicircular part of which contains the furnace B, the walls CCC being composed of unburnt bricks of large dimensions; the first structure is crude, preserving only an approximation to the required form, the interior being afterwards cut away; a large stone capable of containing heat is placed at the bottom; and in this state it is suffered to remain until thoroughly dry; the next operation is performed by a more skilful artist who cuts away the interior, and plasters it with clay, using the measures above described to adjust its dimensions; he first finishes the top, and from the centre of the back part of it, he drops a plummet, to ascertain the spot where the centre of the front part of the stone is to rest; this plummet line corresponds with the perpendicular CD of the geometrical figures 1 and 2—and thus he obtains not only the required obliquity of the furnace, but the points most essential for the adjustment of all the rest.

When the furnace is thus far prepared it is again suffered to dry, and in the mean-time, other appendages called by the Indian smelters *Gudaira, Pachar, Garrairi*, and *Akaira* (names which have no synonyms in the English language), are constructed; the Akaira in particular is a most extraordinary implement, (Diagram I, figs 4 and 5; and Diagram 2, fig 1+); externally viewed it is a clumsy mass of clay enveloping the wind tubes (Diagram I, fig 9) but when it is considered that the complete fusion of this mass, and the perfect completion of the smelting process must be simultaneous results, the implement becomes the most important of all the appendages; thus for instance if it is too small, or too large, its effect will immediately be perceived; in the former case the masset of crude iron will be full of impurity, and in the latter the iron will be consumed, and if it cracks during the operation of smelting, there is no remedy for such an accident—short of dismantling the furnace and commencing the work again.

I found after numerous experiments that its mean length should be 4½ parts, its mean breadth 3 parts, and its mean thickness 1½ parts and it is somewhat remarkable that the product of these dimensions, should exactly equal a twentieth part of the cubic contents of the furnace when fitted for use; this coincidence may arise from the peculiar nature of the clay of

Tendukaira,[3] the ingredients of which are well assorted, but the rule will nevertheless apply generally—because clay by admixture is susceptible of being rendered amenable to rule; and therefore this implement will be found in all Indian furnaces to have (or by tempering the clay may be made to have) the same corresponding dimensions.

The Guddaira is a wedge of clay used to adjust the vertical position of the Akaira when placed in the furnace; and the Pachar is an oblong plate of clay, used in walling up the orifice after the Akaira is placed, and adjusted; these figures and dimensions are given in Diagram I—fig 7 and 8; the Gurairy (Diagram I, fig 6) is a convex plate of clay; perforated with holes and used as a grate—through which the scoria are drawn off.

When the appendages are ready, and the furnace thoroughly dry, it is prepared for use in the following manner.

The front part is walled up from the top to the line SS—Akaira to the top (Diagram I, fig 1 and 3) which line is ascertained by the small cubit; one end being placed at C, the other will measure CB and CS (fig 1)—the grate is next put in, its lower edge resting upon the edge of the stone; and the space is filled—with a mixture of pulverised cow dung and Kodo straw—up to the dotted line (Diagram I, fig 1) upon which is placed the Akaira; its sides being every where 1½ parts distant from the walls of the furnace—as represented in Diagram I—fig 4 and Diagram II—fig 1+; where a, b, c, d, are the walls of the furnace, fig. 5 and 1+ the Akaira; the Gudaira[4] or wedge, is next introduced in order to adjust its vertical angle (Diagram I, fig 1) and this being placed satisfactorily, the Pachar is inserted and the whole has then the appearance represented in Diagram I, fig 3, where No.5, 6, 7 and 8, are the Akaira, Gudaira, Pachar, and Garrairi; nothing now remains but to lute the whole with clay, leaving the ends of the wind tubes open to receive the bellows.

Bellows

The bellows are as singular in their construction as the Akaira, and are worked by the hand; they are made of a single goat skin, the dimensions of which ought to be 7 parts in breadth when doubled, and 8 parts in length; such proportions being required for circular bellows of 5 parts diameter, and which when worked by a man of ordinary strength will rise 6 parts in height—having 11¼ circular folds; the wooden nozzle through which the

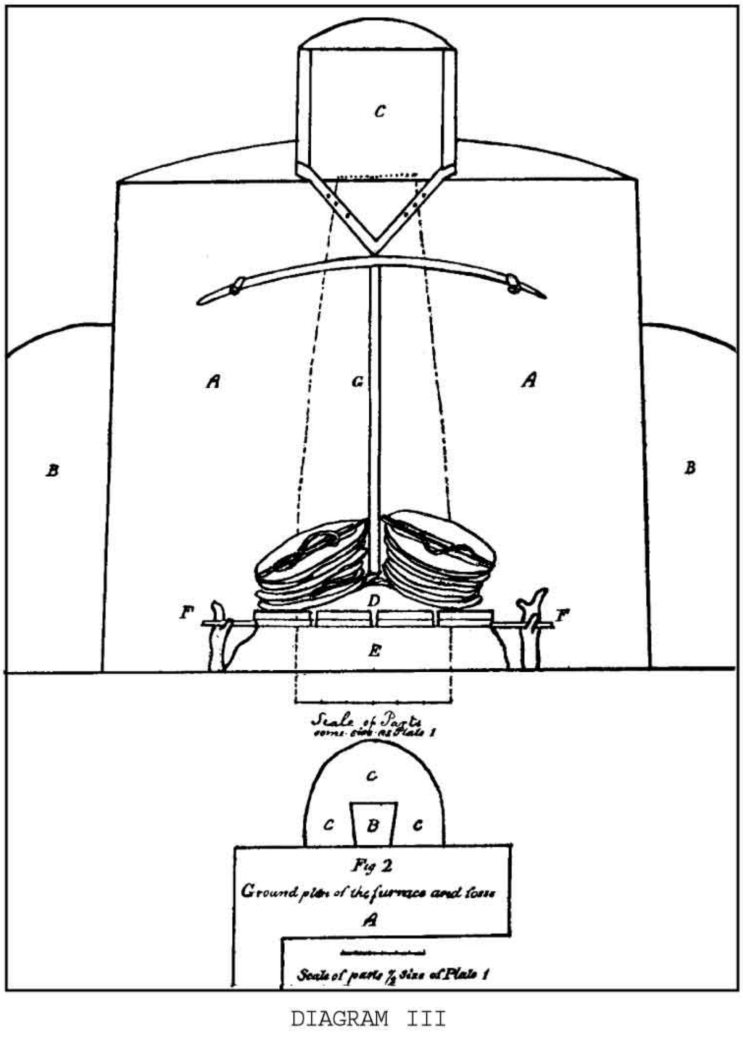
C
A
G
A
B
B
F
D
F
E
Scale of Parts
same size as Plate 1
C
C
B
C
Fig 2
Ground plan of the furnace and fosse
A
Scale of parts ½ size of Plate 1

DIAGRAM III

blast is conveyed into the furnace surfaces the Akaira in its complex nature, and so little is its principle understood—that the art of making it was once lost at *Tendukaira*, and was again restored by the smelters of *Katola*.

Construction of the Nozzle of the Bellows

To construct its figure geometrically, rule a line AB equal 3 parts (Diagram II, fig 2) divide it into four, giving one of those divisions to each of the legs, and two for the space in the centre; set off a perpendicular from C to D equal 3 parts; bisect it and the middle point will mark the apex of the central angle; then through the point D rule a line parallel to AB and from it as a centre set off each way ¾ of a part making together 1½ parts; divide it also into four, giving one of each to the legs, and two for the space in the centre as before; and then by ruling lines to connect all these points, the outline will be complete; the exterior of the implement is plain but the interior is complex and cannot be described except by a reference to Diagram II: fig 3 which represents it, divided in the middle, to show its internal structure.

This curious appendage is fastened to the bellows by leathern thongs, and the blast is forced through it at an angle of 24 degrees but when it is luted to the wind tubes of the Akaira, the blast enters the furnace at an angle of 12 degrees, both vertically[5] and horizontally—because those tubes are placed so as to reduce that angle; Diagram II, fig 1+ represents the whole apparatus luted together and placed in the furnace the walls of which are marked a, b, c, d, and it exhibits at one view, the whole of the mechanism of this complex machinery; the furnace when closed up with clay, and the bellows luted in, is represented entire in Diagram III and IV; the dotted lines showing the chimney—A the outer walls, B, a mound of earth to strengthen the walls, C an upper chimney of moveable bricks, D planks laid across the trench to support the bellows and the man who works them, E a stone supporting one end of the plank, F forked branches supporting an iron bar on which the other end of the planks rests, and G a simple apparatus for preventing the bellows from rising from the planks when they are worked.

The above description is not founded on theoretical conclusions; the measurements given are derived from taking the mean of several and the results were proved in furnaces under my own superintendence; the coincidences of the several parts are very striking, thus for instance, the perpendicular and parallel lines of the geometrical outline are equal in quantity (Diagram I, fig 2); and the top, bulge and bottom being 3, 6, and 4½ parts respectively, show that the furnace is exactly constructed, and that it corresponds well enough with the most regular furnaces of Europe (Diagram I, fig 1); it is also curious, though perhaps of no importance to observe, that the mean of those numbers, being squared and multiplied by the terms of the perpendicular or axis, give the cubic area of the furnace, and show that it is twenty times larger than the cubic content, of the Akaira; the angle of the blast is also worthy of notice, as well as the simplicity by which both it and the obliquity of the furnace is obtained; all these serve to show that the original plan of this singular furnace must have been the work of advanced intelligence, and that its geometrical proportions have been preserved by simple measures; hence though its original form may be changed by caprice or ignorance, its principle never can be lost so long as hands and fingers remain.

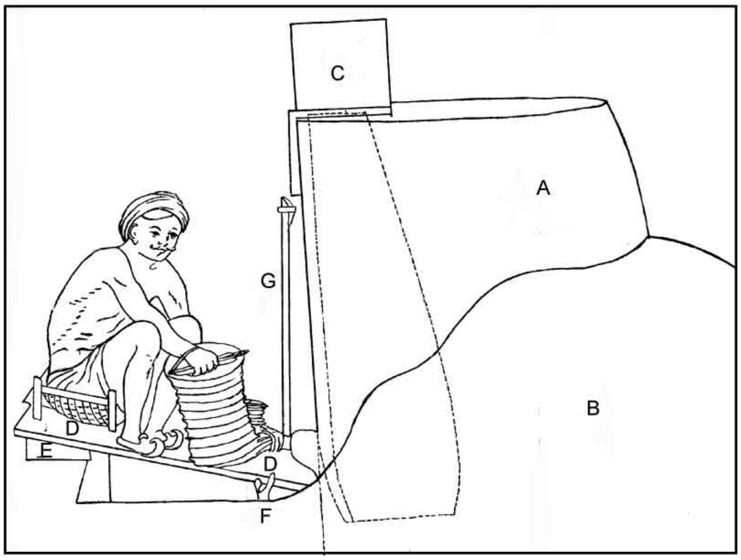

DIAGRAM IV

REFINERIES

The refinery is as crude in its appearance, and as novel in its construction as the furnace, to which it seems to have been purposely adapted: two refineries being required for one smelting furnace; to construct it they use the small cubit of 20 digits, or what is still more available, the space or distance between the tips of the thumb and little finger of a middle sized man when extended without force, two such spans being considered equal to the cubit; the first process is to arrange a number of square unburnt bricks, as in the ground plan (Diagram V, fig 1) in which a, a, a, a, are the walls—A is the chimney, B the refining furnace, C the seat of the refiner, and D the anvil; see also fig 2 for a side view of it—divided in the middle for the purpose of showing the interior structure, in which E is a piece of crude iron under the process of decarbonisation; the dimensions of the chimney are not material—but it is usually about one cubit broad, one deep and six in length; the oval part where the operator sits is altogether a fanciful appendage, being merely a mound of earth in which a log of wood is inserted for receiving the anvil—and its elevation serves the further purpose of giving the workmen a purchase in using the hammer; when the walls of the chimney are finished, the top is covered with unburnt bricks of an oval shape, flat below and convex above and these are luted together by a plastering of clay—fig. 3 is a front view—showing the opening of the furnace and Diagram VI exhibits the refinery complete, with the refiner at work on his seat, the bellows-man plying the bellows, and various implements lying about—A the outside of the chimney—B a mound of earth to strengthen its wall—C the refining furnace—D a piece of crude iron undergoing the process of decarbonisation (in dotted lines)—E the bellows-man plying the bellows—F the refiner with an iron spike in his hand regulating the operation (the dotted lines showing the interior of the furnace)—G a thick plate of iron placed at the bottom of the refinery (in dotted lines)—H a fosse for the hammerman—I the anvil—K implements, and L a heap of charcoal.

The furnace of the refinery is the only part which requires skill in its construction, and this is usually done by the operator himself; its geometrical outline is represented (Diagram V, fig 4) and its construction is as follows. Rule a line AB equal five parts, divide it into six—set off four of these divisions for the top—let fall a perpendicular from the centre C—set off three divisions from C to D for the depth—rule a line through D—parallel to AB and make it two divisions, now rule the outline—bisect the perpendicular and the centre parallel will be equal to three divisions.

The centre parallel is the most important part of the furnace and next to it is the accurate adjustment of the angle of the blast; I have frequently seen the Indian refiners obliged to discontinue their work on account of some error in this point; the usual measure for the former is the span above mentioned

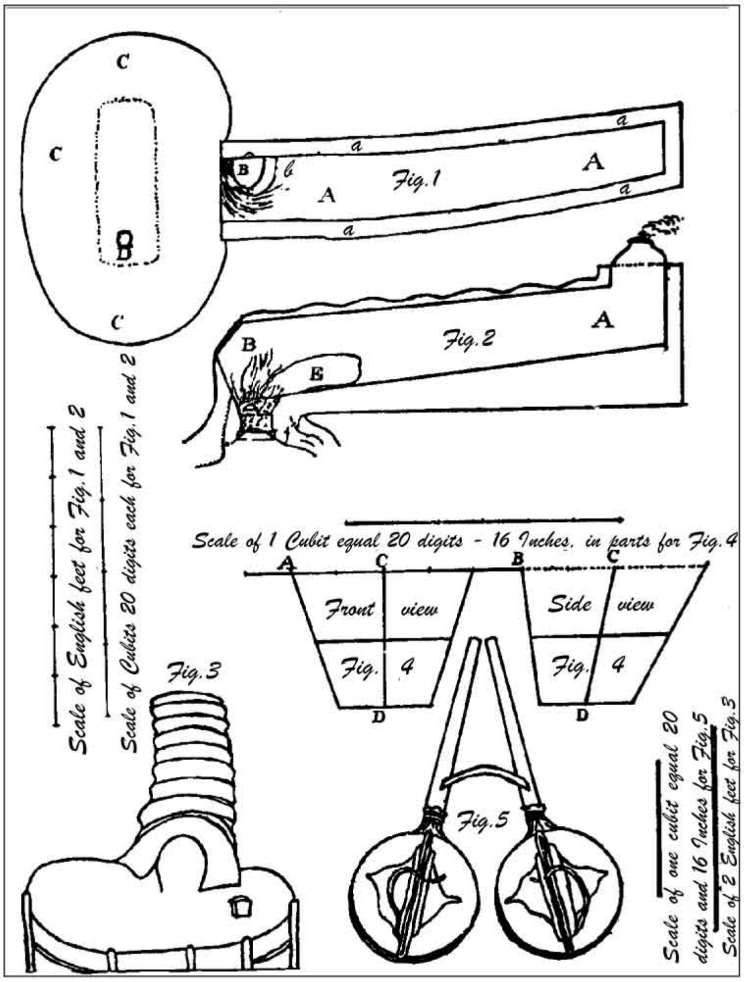
C
C
C
D
B
b
a
a
a
a
A
A
Fig.1
A
B
E
Fig.2
Scale of English feet for Fig.1 and 2
Scale of Cubits 20 digits each for Fig.1 and 2
Scale of 1 Cubit equal 20 digits - 16 Inches, in parts for Fig.4
A
C
B
C
Front view
Fig. 4
Side view
Fig. 4
D
D
Fig.3
Fig.5
Scale of one cubit equal 20 digits and 16 Inches for Fig.5
Scale of 2 English feet for Fig.3

DIAGRAM V

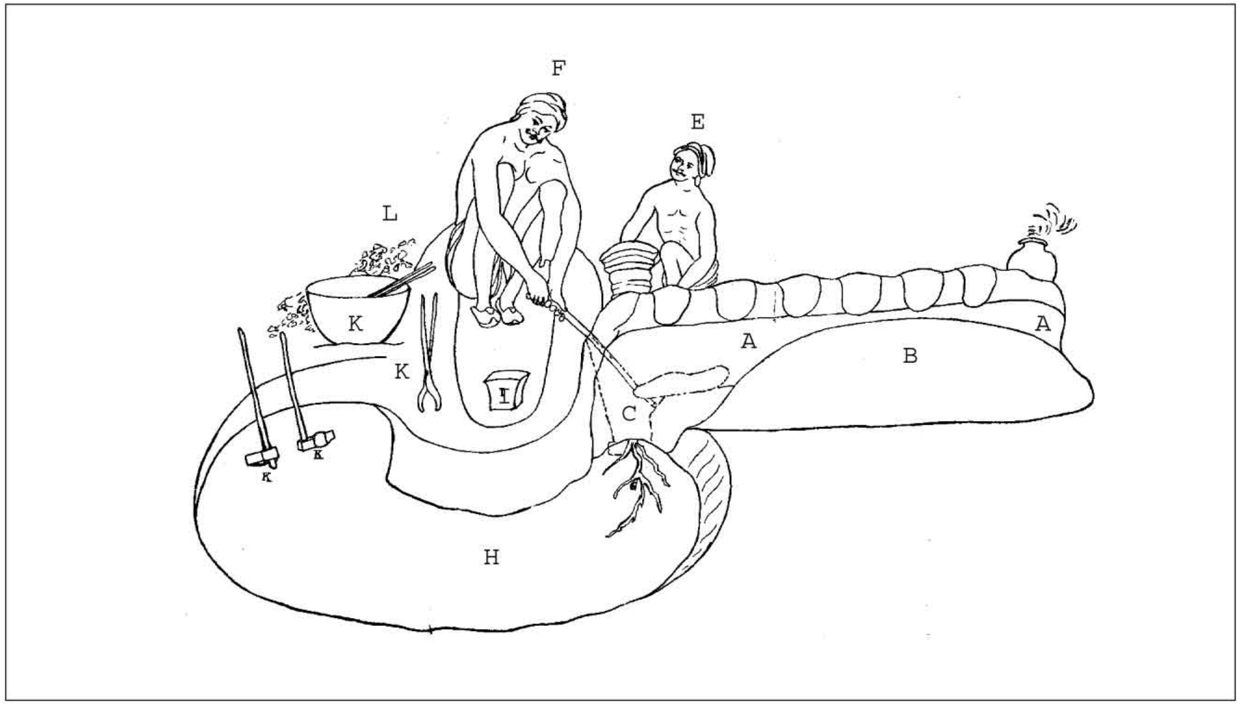

DIAGRAM VI

applied both longitudinally and transversely as in Diagram V, fig 1, B where a ground plan of the furnace is exhibited—the inner circle of which corresponds with the centre parallel of fig 4—this measure never differs much from 8 inches, and that quantity may be assumed as a fair average;—the outer circle *b* of the same figure is indefinite—the space between the two—being merely a slope, chamfering from the inner edge, and gradually expanding, until it is lost in the sides of the furnace, so that in fact it is reverberatory; with regard to the blast, it is absolutely necessary that it should be directed, at an angle of about 12 degrees, upon the opposite edge of the inner circle or to the point c fig 1, B; the natives have no instruments to enable them to do this exactly but the working of the furnace soon tells them where there is an error and they know well enough how to correct it;—the bellows resemble those of the smelting furnace, but instead of the wooden nozzle, they are furnished with long iron tubes—as in Diagram V, fig 5 which are so placed, that the angle of the blast thrown through them is 24 degrees, the same as that of the wooden nozzle.

SMELTING FURNACE

Diagram VII: fig 1 and 2 represent the front and back view of a small circular smelting furnace, which is very common in India—its measurement may be taken from the scale of the diagram either in parts or inches; the bellows are the same as fig 5: Diagram V, and the form of the interior or chimney is exhibited by dotted lines; fig 3 and 4 of the same diagram show another description of refinery used chiefly for decarbonising large masses for the manufacture of anvils & c. worked by two pairs of bellows—this refinery might be more extensively applied; such as for the manufacture of adletress* or other heavy work.[6] Fig 5 is a small field blacksmith’s forge, constructed of the same kind of oval bricks, as those which are used for covering in the refinery, and luted together by clay; this apparatus may be constructed in half an hour; and is a useful field-smithy; fig 6 is a tube of clay, used in the refinery to preserve the ends of the bellows—fig 7 is a tube of the same kind used in the small circular furnaces.

MODE OF SMELTING AND REFINING

In the process of their manufacture the Indian smelters use charcoal only; the ore is broken into pieces about the size of a walnut, but it is not washed, nor is it roasted although it is known to contain a large quantity of sulphur which might be dissipated by that method; they commence by filling the chimney of the furnace

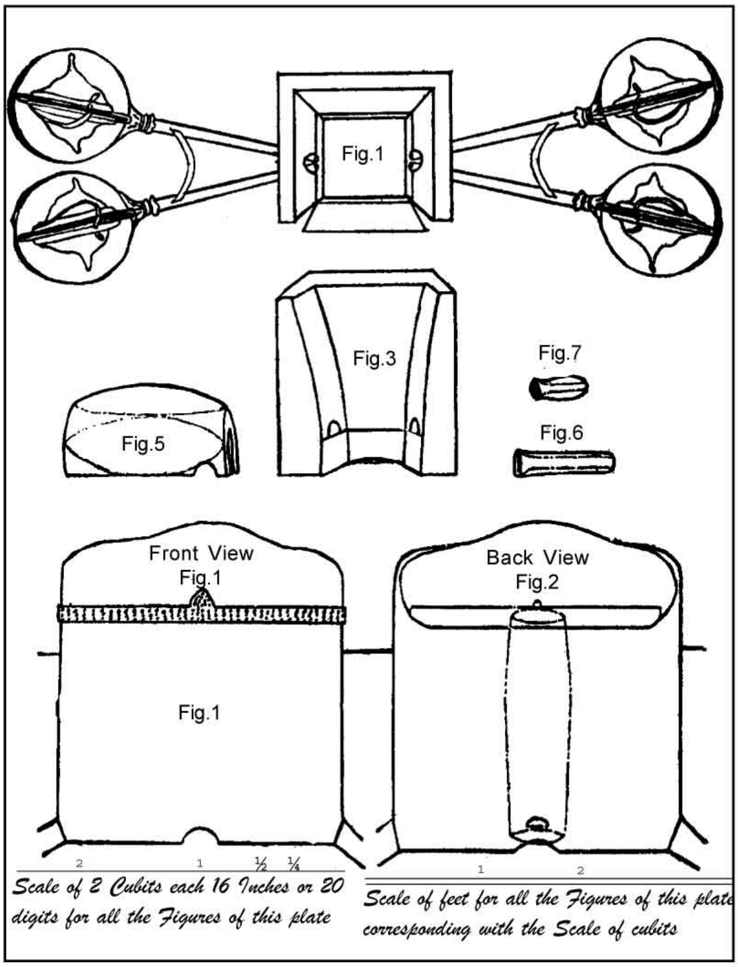
Fig.1
Fig.3
Fig.7
Fig.5
Fig.6
Front View
Fig.1
Fig.1
Back View
Fig.2
2
1
½
¼
Scale of 2 Cubits each 16 Inches or 20 digits for all the Figures of this plate
1
2
Scale of feet for all the Figures of this plate corresponding with the Scale of cubits

DIAGRAM VII

with charcoal which they suffer to burn until all moisture is expelled; they then throw in a small basket of ore, and upon it a larger one of charcoal, after which the burden is allowed to sink as low as the line G (Diagram I, fig 1 and 2) when it is again charged—and afterwards ore and charcoal are alternately given in the same proportions until the operation is complete; the scoria begin to flow within the space of an hour, and by that time, it is known whether the furnace will work well or ill—the scoria being a sure indication; it is let out by piercing the grate with an iron spike, and the orifice is again closed with clay as soon as it is drawn off; the bellows are worked by three men—who take it by turns; and they should be kept constantly playing until the process is completed; the time of which is ascertained by introducing a hooked piece of iron through the wind tubes, into the furnace, which shows how much of the Akaira remains; for as I have shown before, it is indispensably necessary that this appendage should be totally fused before the operation is complete, and when this is the case, it would be useless to continue longer, because the furnace would cease to work properly; it usually continues 12 hours but much depends on the bellows-man, and also on the working of the furnace.

The metal is never completely melted by this process—the heterogeneous mixture of the ore alone is fused and thrown off in scoria, and the iron being freed from it falls by its superior gravity to the bottom of the furnace, and there coagulates into a mass or masset; it is never very highly carbonised, and sometimes it is partially malleable even in its crude state; when the process is finished, the bellows are removed; the front part of the furnace demolished; and the red hot masset dragged out, and divided by large ades* before it has time to cool, hence it happens that the parts of the furnace thus broken up, require daily renewal.

This completes the business of the smelting furnace—the process of decarbonisation being performed in the refinery, and Diagram VI: fig. D, represents half a masset—properly placed in a refinery and undergoing that operation; as it becomes decarbonised, it drops into the hollow of the furnace upon the plate of iron G—and when a sufficient quantity has accumulated, it is taken out and hammered into more circular lumps which are seen in every bazar; the charcoal used in the operation is always of hard wood, such as teak (tectona grandis), mowa (fana latifolia)* or bamboo; this is the part of the manufacture in which the Indian manufacturers play tricks; for in the first place they do not allow time for the crude mass to become properly decarbonised and then again they have a most pernicious practice of knocking off corners and small pieces from the masset in its crude state into the decarbonising fluid, and instead of waiting patiently until the whole of the masset is decarbonised they often throw in large lumps at the end of the process, mixing all these crude pieces with the other so that the cheat cannot be detected except on trial; thus they not only shorten the time of the operation, and thereby use less fuel, but contrive by this nefarious practice to sell a large portion of their crude iron at the same price as the malleable; they are also very sparing in their hammering lest they should force out too much of the Vitreous Oxide and thereby reduce the weight; so that upon the whole there seem to be causes which have justly affected the reputation of Indian iron—but as they are repairable errors, they ought rather to be placed to the account of the perversity of Indian habits—than arrayed against that fair repute to which the Indian metal under different management might lay claim.

PRODUCE

The produce of the ore of *Tendukaira* varied from 36 to 40 per cent—but as it was upon the whole nearer to 40 than 36—I am quite safe in fixing the average at 38 per cent; I tried by roasting the ore to obtain a greater quantity but without effect, neither was I satisfied with its result in another point of view, as will be shown hereafter; with regard to charcoal the consumption varied according to its quality—or, in accordance with the working of the furnace. The following diary contains a statement of the daily produce of four smelting furnaces, from which I assumed a mean, as a fair proof of their power of production. They were under my own superintendence from the 30th April to 6th June 1827 which is beyond all question the most unfavourable portion of the year for smelting iron, and the result therefore is the more enhanced in value.

From this statement it appears that each furnace yielded upon an average about 18½ *Panchseri*,[7] and that every hundred sers of crude metal yielded 63 sers of malleable iron; the total of the produce therefore is as follows: the ore yielded 38 per

DIARY

Date	Produce in Panchseri	Weight when rendered malleable (in Panchseri)	Remarks
April 30, 1827	19	12¼	On the 8th of May, an attempt was made to alter the dimensions of the Akaira, and had it escaped detection a few days longer it would have occasioned a failure; as it not only diminished the produce of the furnaces but the massets contained so much impurity that the produce of malleable iron became greater. The effect of the hot weather became very perceptible in June, and I found it expedient to discontinue smelting on the 7th of that month, but in order to satisfy myself that there was no trick in the diminution of produce, I gave ore and charcoal to the bellowsman to smelt for their own benefit; they tried their best to obtain as much as they could and they got 13, 14, 14¾ and 18—the mean of which is 15—about the same quantity as they got for me. I was, therefore, satisfied that the diminution of produce was owing to the heat of the weather alone as the thermometer ranged from 120° to 122° in the sun, and from 108° to 110° in the shade.
May 1 1827	19	12¾	
″ 2, ″	19½	12¼	
″ 3, ″	16½	10¼	
″ 4, ″	18¼	10¼	
″ 5, ″	17½	10¼	
″ 6, ″	18½	12	
″ 7, ″	16	10¼	
″ 8, ″	14¼	9	
″ 9, ″	18¼	11¼	
″ 10, ″	19½	12¾	
″ 11, ″	20½	13¼	
″ 12, ″	21½	14	
″ 13, ″	20	13	
″ 14, ″	21¾	12¾	
″ 15, ″	21½	14	
″ 16, ″	22	13	
″ 17, ″	21¾	13	
″ 18, ″	20½	12	
″ 19, ″	19	11	
″ 20, ″	19	12¼	
″ 21, ″	19¼	12¾	
″ 22, ″	19¾	12	
″ 23, ″	17½	11	
″ 24, ″	18¾	12¼	
″ 25, ″	22	12¼	
″ 26, ″	18	10¼	
″ 27, ″	17½	11	
″ 28, ″	17½	10¾	
″ 29, ″	20	12¾	
″ 30, ″	19¾	12	
″ 31, ″	17	11	
June 1, ″	17½	10	
″ 2, ″	15	9	
″ 3, ″	18½	11¾	
″ 4, ″	16¾	11	
″ 5, ″	14¾	9¾	
6, ″	15½	10	
Total of one furnace	709	447	
Total of 4 furnaces	2836	1788	or 354½ & 223½ Maunds

cent—the crude metal 63 per cent—and the malleable iron yielded 56 per cent when wrought up into bars fit for use in a suspension bridge—as will be shown in the following paragraph.

QUALITY OF THE IRON

The iron was made over to Captain Presgrave of the Sagar Mint (an officer very capable of judging with regard to its quality). He wrought it up into bars and rods for an iron suspension bridge on which he was then employed and the following is his report to understand which it is necessary to refer to the note below.[8]

> The first six marks, afford bar iron (as far as my knowledge allows me to judge) of most excellent quality, possessing all the desirable properties of malleability, ductility at different temperatures and of tenacity for all of which I think it cannot be surpassed by the best Swedish iron; the second description consisting of the three last numbers in the accompanying statement has produced very good bars, but in forging and working it up, the iron appears somewhat harder, probably from it still containing a portion of carbon; the different marks varied in yielding from 50 to 60¼ per cent in bars, the average from the whole being rather more than 55¾ per cent.

It is necessary to add that the bar iron mentioned above, is not[9] common bar iron—but highly wrought bars, for use in a suspension bridge; the hardness alluded to in the three last numbers, was evidently occasioned by the metal 'still retaining a portion of carbon', and it is worthy of remark that this quality was confined to those specimens, the ore of which had been roasted.[10]

COST OF THE IRON

The cost of the iron was as follows. The excavation of a mine cost 30-12 Nagpur or 25 Calcutta Sicca Rupees; the construction of four smelting furnaces, two refineries, and one small round furnace, cost 34-12 Nagpur or 30 Sicca Rupees; and the purchase of skins and manufacture of seven pairs of circular bellows cost 30-5 Nagpur or about 25 Sicca Rupees—total of outlay 80 Sicca Rupees; but as my experiment lasted only five weeks, and the above outlay was calculated to last a whole season, a portion of it only is chargeable to the cost of the above iron; the hammers, anvils and other implements of iron, not being perishable articles—are chargeable only for reasonable repairs; thus the proper proportion of outlay is 15 Rupees, and the expense[11] of working the furnace was 441-0 Nagpur or 375 Sicca Rupees, the total of cost therefore for 225 maunds of malleable iron was 390 Sicca Rupees, or one rupee 12 annas per maund.

The iron was weighed by the standard of Nagpur—the maund of which place is about 3 lbs avoirdupois less than the factory maund of Calcutta; hence its weight is about 71 lbs 10 ozs avoirdupois, and 31¼ Nagpur maunds are nearly equal to one English ton; the value of the Calcutta Sicca Rupee is usually reckoned at 2 shillings and hence the cost of a ton weight of malleable iron in English money was five pounds nine shillings, and five pence, or in round numbers—five pounds ten shillings.

CONCLUSION

It was my intention to have compared this little furnace with some of the minor furnaces of Europe—but as my knowledge of the latter must have been derived from books, I prefer giving facts derived from actual experiment, and leave the comparison to those who are better able to make it: the quantity of crude metal smelted in my four furnaces from the 30th April to the 6th June, was[12] 354½ maunds, and its cost was 304 Nagpur or 260 Calcutta Sicca Rupees—hence its cost per maund was 11¾ annas, or two pounds, six shillings per English ton—and the produce per week of four furnaces was 71 maunds or 2¼ English tons.

These data show the cost of the iron both in its crude and malleable state and Captain, now Colonel Presgrave's report gives the latter so fair a character that it may be useful to follow up that report by another obtained from the Calcutta Mint on some pieces of *Jowli* and *Ageriya* iron which were wrought up to the state of English bar iron—and submitted to trial—the substance of the report is as follows:

> A piece of the Jowli iron being broken showed about half the surface of a fine blue tough appearance, the other half had a very brittle appearance of a glassy white colour resembling what the smiths in England call cold-short; this

piece 1 inch broad and ¾ inch thick was put into a clam and a lever applied to it; it twisted with a fair resistance, and bore one revolution in 6 inches without showing a fracture; it was then warmed and a hole punched through it, which it bore in a way that would have been expected in a piece of good English iron and better than the general run of English iron purchased in the bazar would have borne it. An eye being turned at each end, the space of 10 inches long was drawn down to one third of an inch square, and dead weight scale fashion without the use of the lever applied and in the length of six inches it elongated:

1/10th of an inch with			3378	lbs
2/10th	"	"	3624	"
3/10th	"	"	4795	"
5/10th	"	"	5127	"

and drew itself to near a point and broke with 5246.

A piece of the Ageriya iron, on being broke, showed a small portion of its fracture light blue tough vein, the remainder silvery white, showing very fine particles, and was what the smiths in England would say had an inferior appearance, it was 1 inch broad by inch thick, and was twisted cold one revolution in 6 inches without showing a fracture and appeared to be much stronger (to the twist in proportion) than the above piece from Jowli, though much softer; it was then heated, and punched which it bore in a manner sufficient to give it the character of very fair average iron; an eye being then turned at each end, the space of ten inches long was drawn down to one third and dead weight scale fashion without the use of the lever, applied and in the length of six inches—it elongated 1/20 of an inch, with 4748 lbs, and made a square break with 5376 lbs.

Though the Ageriya piece gave no notice of its approaching failure, whilst suspending a weight; yet when brought to the bend, it showed itself possessed of the power of elongating, and bore more bend without showing a fracture than the piece of Jowli and stood the bend better than the general run of English iron purchased in the bazar.

The above statement was addressed to Captain Forbes, superintendent of the hon'ble Company's steam engines and machinery, to whom I applied to obtain a trial and the experiments were all made by one of the most able and practical men of the Mint—named Thomas Pigg.

Having now exhausted all my information which was obtained from actual experiment and impartial trial and proof I shall conclude with the following remarks—viz: that the Indian forge is able to make crude metal, for two pounds six shillings, and good malleable iron for five pounds ten shillings per English ton; it is moreover susceptible of improvement; it requires but little outlay; it is portable; and may be transported from place to place, the implements being the only things necessary to carry; it may be erected in places which combine the advantages of proximity of ore and fuel and where other furnaces requiring a large supply of water cannot be set up—and it may be erected for temporary purposes and abandoned when the object is fulfilled without material loss, the furnaces being the only part which would be lost and their cost is about 6 shillings each.

The employment of so simple a forge in England would be absurd—but considering it an instrument adapted to the existing condition of the country where it is used—it assumes a different character—for such is the cheapness of labour and fuel that I question whether any other furnace would compete with it—and if by improvement it can be made capable of working on a larger scale; arsenal materials, materials for bridges and other heavy work—it certainly is an object worthy of attention, as a great saving of expense might be effected by its use.

Note

1. Laterite is a term given by Dr Buchanan to a species of iron clay very prevalent in India.

2. *Note*: See the map which accompanies this paper.
[Omitted here. —*Editor*].

3. *Note*: It may here be observed the nature of the clay is a material point with regard to this implement, and at Tendukaira it is well adapted, being near the great trap-range, and reposing on a mass of cretaceous limestone belonging to the trap family; in all probability therefore it contains a small portion of lime; a few small grains of wacke may also be observed in it and in addition to these *Kodo* straw being mixed with it the potash derived from these materials facilitates the fusion of its silex, whilst the lime renders it a fusible compound, the ingredients of which are well assorted, and seem to be well adapted for use. The native smelters once deserted these mines on account of some pique, but the quality of the clay brought them back again.

4. *Note*: The broad end 3½, the narrow end 2½, the mean of which is 3 parts. These dimensions do not greatly differ from those of the native smelters, on the contrary they are founded on the mean of all the measures I could procure—and the difference consists in their being regular and fixed while those of the natives are irregular and often governed by caprice.

5. *Note*: The vertical angle is obtained by means of the wedge the thickness of which is adapted to the angle of 12 degrees, and the horizontal angle is obtained by keeping the ends of the wind tubes a certain number of fingers breadth as under when embedded in the Akaira. These quantities never differ much.

6. *Note*: The refinery is convertible into a blacksmith's forge by taking out the iron plate and building up a wall in the middle so as to destroy the reverberating effect.

7. The furnaces all varied in their produce but the mean is 18½ Panchseri—a Panchseri is 5 sers—eight of which or 40 sers are equal to a maund.

8. *Note*: I tried all the descriptions of ore and made experiments on roasting it—the result of which could only be ascertained by making the iron; the first six marks constituted the bulk of the quantity submitted for trial, and their iron result may be safely taken as a fair average; the other three are the result of my experiments on roasting the ore—previous to smelting.

9. The common English bar iron yields about 70 per cent of such highly wrought bars.

10. *Note*: The roasting of iron ore, previous to smelting is supposed to repay with advantage, the additional expense it occasions; and the reason of its ill success with me I can only explain as follows: The furnaces of Europe are I believe in general perpendicular that is—the ore and fuel fall perpendicularly and consequently their descent is more rapid; but in India the furnaces are oblique, and the descent of ore and fuel more gradual and hence sufficient time is gained for dissipating sulphur, or other volatile ingredients before it reaches the point of greatest heat; this appears to be the fact as the chimneys of these furnaces are always coated with sulphur; it would seem also that the metal acquires more carbon under the effect of both operations than the Indian refinery, constituted as it now is, can dispose of—and hence the hardness of the last three marks as observed by Captain Presgrave.

11. *Statement of Expense*

6 Men for each Smelting Furnace or 24 for 4 furnaces from 30th April to 6th June, or 1¼ month at 4 Rs. each per mensem		120-0
Charcoal for the Furnace for the same period		134-0
For digging ore		14-2
Carriage of ore		15-5
Carriage of charcoal		14-9
Head-Man		6.0
	Total Cost of Smelting	*304-0*
1 Lohar Mistry at 8 and five Lohars at 4 [Rs.] per mensem for each Refinery: this sum doubled for two and for a period of five weeks is		70-0
Teakwood Charcoal for the Refineries		63-0
Head-Man		
	Total Cost of Refining	137-0
	Total Cost of Smelting	304-0
	Total Expense	441-0

12. *Note*: See Diary.

XVI

MANUFACTURE OF BAR IRON IN SOUTHERN INDIA

(*By Captain J. Campbell, Assistant Surveyor General, Madras Establishment. (A.D. 1842).)

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1. In the commerce between India and England, a source of deep injury to the former country arises from England having deprived her of the trade in cotton cloth, the manufacture of which was, but a few years ago, one of the most valuable and extensive of Indian products; while from no other having been as yet introduced as an export to balance the imports from England, it has become necessary to drain India of her specie to pay the expenses of the Government, and for the articles she requires from the mother country. The Government both in England and in India have therefore been unremitting in their endeavours to promote and foster the export trade from India; and in the mean time have endeavoured to economise by means of the internal productive resources of the country, and thus in some measure reduce the export of specie, and at the same time disseminate a knowledge of practical manufacturing processes.

2. Among the most extensive of the exports of England to India, is the trade of bar iron, which to Madras alone amounts to 1,000 tons per annum; and while India is known to produce malleable iron of a superior quality, it has been frequently proposed as a question whether she could not supply her own wants in this article at a cheaper rate than if procured from England, if improved processes were introduced in the reduction of the native ores. I am not aware that any satisfactory experimental investigation of this point has ever been instituted, or given to the public; but from the remarks in the reports of the Committee for investigating the coal and mineral resources of India, it would seem that little or nothing is as yet known upon the subject.

3. English iron is not used inland in Southern India, in consequence of the great expense of land carriage, and from the same cause, it is probable, that in Northern India also, the only

iron used is that made upon the spot; and as the manufacture must be very limited in quantity ('quality' in original; appears to be a misprint.—*Editor.*), it becomes of much importance, both to individuals and to the Government, to be acquainted with the mode of supplying any extraordinary demand. Indeed, we are informed by Captain Drummond, in the Journal of the Asiatic Society of Bengal, that the carriage of a suspension bridge erected in Kernnon, alone cost about 80 rupees per ton, or as much as the iron might have been made for upon the spot.

4. In projecting the establishment of a new manufacture, persons are but too prone to copy an old established process, without studying sufficiently the principles by which the result is produced, so as to be able to modify the mode of operation to suit the resources of the locality, and the capabilities of the workmen; and because the English mode of manufacturing iron has been found to be the most profitable in England, it has been supposed that a similar process could alone answer in India. This process has also been styled 'scientific', but the fact is, that the principles of the mode of operation are still totally unknown, and the manufactures are not only unable to produce at pleasure a certain result, but even the quantities of the results produced depend upon the weather, and other causes as yet not explained, or beyond the control of the workmen. We do not as yet even know what cast iron is; nor with any certainty what its component parts are; nor in what it differs from steel, or the varieties of what are generally called carburets of iron. On this point Barlow remarks: (Encyclopedia Metropolitana) 'There is certainly much to be learned in the iron trade, before we can boast of any thing like a complete knowledge of its different processes. We observe many facts in this, as well as in other branches of the manufacture, of which, the most we can say is, that they are connected with, or caused by certain other accompanying facts, though we are ignorant how this connection exists; often, indeed, our knowledge does not extend so far.' Again, 'it is, however, so difficult to follow up chemical analysis, and to obtain results with minute accuracy, in a process requiring intense heat, that hitherto the phenomena attendant upon the refining of pig iron, and its conversion into bars, may be said rather to be guessed at, than perfectly explained.' Upon the same point also Dr Ure remarks: (Dictionary of Manufacture) 'but philosophers have been, and still are, too much estranged from the study of the useful arts, and content themselves too much with the minutiae of the

laboratory and theoretic abstractions.' Such being the state of our present knowledge of this subject, it may be doubted if a careful examination of the principles of the long established, cheap, and simple mode of manufacture of the native of India, might not lead to improvements and modifications, which would be found to answer better, than the operose methods of the English manufacture, which require much capital, costly building, and a considerable trade to make them profitable.

5. In England the fuel now most generally used in smelting the impure iron ores of the coal fields is coke; and the ore after being first roasted to separate the volatile impurities, as much as possible, is exposed to its action in blast furnaces, generally about forty-five feet in height, but varying sometimes from thirty-six feet to even sixty feet. In the middle, these furnaces are about twelve feet in diameter, but at top are contracted to about four feet, and at bottom, where the blast of air is introduced by pipes from powerful blowing machines, the diameter is only about two feet. The pressure upon the air forced into the furnace is about three pounds upon the square inch, and the quantity of air amounts generally to as much as 4,000 cubic feet per minute. The cast iron as it forms, falls down into the bottom of the furnace; which is always hot enough to maintain it in a state of fusion; where it is protected from the action of the blast by a covering of fused slag which floats upon it. These furnaces are kept in action unremittingly, night and day, for several years together; the metal being allowed to flow out every twelve hours in quantities of about six tons at a time. The material used in building the blast furnace is principally fire brick, and a pair of furnaces cost upwards of £1,800 sterling. The proportion of coal used in making a ton of cast iron, varies very much, from three tons in Wales, to sometimes eight tons in Derbyshire; but the use of heated air in blowing the furnaces has very much increased the quantity of the products of the blast furnace, and has also diminished the expenditure of fuel, but the quality of the cast iron is said to be deteriorated. The estimated expense of making a ton of cast iron is about £3 sterling.

6. For converting cast iron into bar iron, the first process generally employed in England is called 'refining', and consists in fusing about a ton of cast iron at once in flat open furnaces about three feet square, where it is exposed for two hours or more to the action of a strong blast, by which it is supposed a portion of the carbon it contains is burnt off. Much gas escapes from the surface of the metal during the operation, and a large

quantity of black bubbly slag separates, after which the metal when run out and allowed to cool, has a white silvery appearance, is full of bubbles, is very brittle, and has acquired the property of hardening by being suddenly cooled. In ‘refining’, about four or five hundredweight of coals is used to the ton of cast iron, and the metal loses from twelve to seventeen per cent of its weight.

7. The ‘refined’ cast iron, now termed ‘fine metal’, is then exposed in a reverberatory furnace, called the ‘puddling furnace’, to the action of the flame of a large coal fire, by which it is first partially melted, then falls into a coarse powder; and on being stirred up and presented to the flame, becomes at last adhesive and tenacious. It is then formed into large balls, and after receiving a few blows from a large hammer to consolidate it, is passed between rollers which squeeze out much of the impurities, and form it into ‘mill bar iron’. This is however too impure for use, and it is necessary to cut the rough bars into pieces and to weld them together afresh, in a ‘reheating furnace’, and expose them to another rolling, and even to repeat the operation a third time, before good tough bar iron is produced. In the ‘puddling furnace’ about a ton of coals is expended to each ton of ‘fine metal’, and in the ‘reheating furnace’, about 150 pounds more are expended; and in each operation a loss of about ten per cent takes place in the weight of metal operated upon.

8. Upon an average about nine tons of coal are expended in England in forming one ton of finished bar iron, and it is probable, that if the above processes were attempted upon any smaller scale than that of the English works, a still greater quantity would be used. Some of these works cost £27,000, and turn out 120 tons of bar iron per week.

9. In France, Sweden, Norway, and parts of Germany, the fuel principally used is charcoal, and the ores are pure oxides of iron; the furnaces are about thirty feet in height, and in shape resemble in great measure the blast furnaces of England. Leathern forge bellows are frequently used to blow them, and the results vary from five hundredweight of cast iron per day, to sometimes five tons. The quantity of charcoal used also varies very much, from one and quarter ton, to two and half tons for each ton of cast iron, according to the nature of the mineral oxide smelted.

10. The cast iron thus made is treated with charcoal in a refining furnace, not differing much from the English ones, but the metal is not allowed to run out, the operation being

continued for nearly five hours, until the metal has become tenacious and adhesive, when it is removed in lumps of about two hundred weight each, which are forged under a large tilt hammer, then cut into smaller pieces, and is drawn out into bars at once. In this process the metal loses about twenty-six per cent of its weight, and 149 pounds of charcoal are consumed for every 100 pounds of iron produced.

11. Formerly a kind of furnace called in Germany a 'steuck often' was sometimes used, which was from ten to fifteen feet high, and three feet in diameter, resembling very much an iron founder's cupola furnace, but with a larger door, which was broken open after the operation was finished, which required about twelve hours, and the lump of cast iron weighing about a ton, was removed with powerful tongs to the refining furnace. The quantity of charcoal used was from two and a quarter to three and a half cwt. for every cwt. of cast iron, and about one and half cwt. more was required in the refining and forging, making the whole expenditure from four to five cwt. for every cwt. of bar iron.

12. In some parts of France, malleable iron is made at once from the mineral oxides of iron, in what are termed 'catalan forges', which are cavities about 16 inches square, and two feet in depth, sunk in the floor of the workshop, the blast being thrown in by a pipe sloping towards the bottom of the furnace. The cavity being filled with charcoal, the ore is added in small quantities, alternately with fresh charges of charcoal, and in about five or six hours a lump of iron is procured, weighing from two to four cwt. which is removed, and forged at once into bars. The expenditure of charcoal is very great, amounting sometimes to eight times the weight of the iron procured. But when wood is cheap and abundant, there can be little doubt this process would be a convenient one for smelting any of the mineral peroxides of iron.

13. The mode of smelting iron used by the natives of India, appear to be very much the same from the Himalayas down to Cape Comorin, and in some degree resembles that alluded to in paragraph 11.

The ore principally used is either the common magnetic iron sand found in the nullahs, or else pounded magnetic iron ore, separated from the ferruginous granite, but I have seen specular iron ore used by the Konds of Goomsoor.

14. The material used for the native furnaces, is the common red potter's clay of India, which unless carefully selected, is not generally very refractory, and will hardly stand a heat sufficient to fuse cast iron, but by mixing it with sand, and by concentrating the heat in the centre of the furnace as much as possible by a projecting blast pipe, the reduction of the ore is effected before the furnace has become much more than red hot; the operation being completed in about a couple of hours.

15. In constructing these furnaces, a platform about two feet square and five inches thick is first made, with a hole in the centre nine inches in diameter. A half-cylinder or curved piece is then formed also of the red clay, eighteen inches high, four inches thick, and thirteen inches diameter inside, and the same depth, and also a cone about two inches thick of the same height, and the same diameter at bottom, and seven inches at top. When these are quite dry, a little wet clay being put round the hole in the platform, the half-cylinder is placed upon it, and the open front is built up with clods of clay, and the inside part is plastered for two inches thick until a hollow cylinder is produced, about twenty-three inches deep, nine inches in diameter inside, and about six inches thick. When nearly dry, an arch is cut out in front at bottom about nineteen inches high, to form the door of the furnace. The cone is then placed on the top, and the inside plastered with clay to correspond with the bottom part, and the neck or throat reduced in the same way to about five inches diameter. The upper part of a chatty with the neck is then placed inverted on the apex of the cone, to form a funnel to conduct the charge into the throat, and the chatty and the whole of the outside of the furnace is then plastered over with clay about two inches thick, so as to give the appearance of a large sugar loaf enlarged a little at the point. When finished, the height inside from the bottom to the neck is about three feet ten inches, and the whole takes about a week to finish before it is quite dry.

16. The blast pipe is a cylinder of dried clay fourteen inches long, and about four inches thick, pierced with a hole of an inch in diameter. It is introduced into the furnace at the bottom of the door, with the point about the centre of the furnace, and about five inches above the bottom. The door is then closed with a tile of dried clay, and the outside is built up and secured with wet clay plastered over, a layer of charcoal dust, about two inches thick, having been first placed at the bottom of the furnace to prevent the reduced oxide adhering to it.

17. The bellows are two goat skins taken off the animal, by opening the hinder part only. The orifices at the legs are sewn up, and a piece of bamboo is inserted, and tied tightly into the neck of each skin, and these bamboos being inserted into the outer part of the blast pipe, which is made conical for that purpose, the vacant openings are then stopped with wet clay. The open end of the skin is finished by folding the edge of one side, as a flap, about four inches over the other edge, and sewing up the upper and lower corners, so as to leave a part of both flaps open for about nine inches. When the skin is filled with wind, and pressed, the inner flap closes therefore against the outer, and stops the passage. Each skin is managed by one man, who places it in his lap, and squeezes it down with the elbow and lower part of the right arm, grasping at the same time a projecting sort of handle of leather, formed at about the part where the tail of the animal might have been. To enable the blower to fill the skin again with wind, a piece of string is attached to the lower corner of the posterior part, which is tied to a peg driven into the ground about a foot behind the man's elbow, and keeps the skin distended to its full extent as it lays in his lap; and a loop of leather is also fastened to the outer flap, through which the arm is passed, by which the opening into the skin is distended upon raising the elbow; and the skin being pulled out horizontally by the neck in one direction, and the string and the peg in the other; upon pulling up the middle part vertically by the leather grasped in the hand, the skin is opened out into a triangular shape, and fills with wind through the open flap. While squeezing one skin in blowing also, by pressing the hand forward, so as to pull against the string attached to the posterior part, the valve flaps are made to close fairly and properly, so as to allow hardly any wind to escape. The left hand is employed in assisting the right, or in squeezing the distended parts of the skin upon the side. It will be observed, that as both the necks of the skins open into the blast pipe, a portion of the wind expelled from one skin passes back again into the other; as they are worked alternately, a defect which might have been remedied in a most simple manner, by attaching little hanging door valves to the ends of the pipes.

18. A small quantity of charcoal being thrown into the furnace, the fire is introduced, and the blast commenced, and the furnace is filled to the neck with about twenty-six pounds of charcoal. In about half an hour flame issues from the throat, and the fuel begins to sink, at which time the charge is commenced, which consists of ten pounds of charcoal and five pounds of ore,

wetted to prevent it running down too fast. The charge is repeated seven times, and the furnace is allowed to burn down, and in about two and a half hours as soon as welding heat sparks are seen to issue with the flame, the bellows are removed; the door broken open; and the lump of reduced iron is removed, and cut open while hot with a hatchet, to show the quality. Four men are required to work one of these furnaces, one being a maistry superintendent, and the other three labourers, and they are able to make about three lumps in a day of twelve hours, but after four days' work, the lining of the furnace is destroyed, and requires renewal.

19. The lumps which result from the native furnaces weigh about eleven pounds, and are sold sometimes at the rate of two annas each. They are not, however, all iron, and on bringing them to a welding heat in a forge, a large portion consisting of fused oxide, melts away, and the best lumps which I have examined yield only about six pounds of iron, (generally they do not contain more than three pounds). Taking forty rupees a ton as the expense of forging the iron into rought bars by hand hammers, we shall have eighty rupees a ton as the expense of bar iron, made with these diminutive furnaces, which is less than the present market price at Madras of the cheapest English bar iron. In my experimental investigation of the best methods of managing small blast furnaces, not larger than the native ones, I have found that two men can procure in a day's work of twelve hours forty pounds of crude iron, with an expenditure of half the quantity of charcoal and ore used by the natives. Furnaces of this size offer therefore a cheap, convenient, and ready mode of smelting iron wherever charcoal is abundant.

20. Although the aggregate manufacture of iron in India is no doubt very considerable, yet from the difficulty of inland transport in Southern India, it is probable that no extensive iron works will ever be established by European capitalists; and the only improvements which are capable of being introduced with advantage, or may be within the comprehension of natives, are those by which the expenditure of fuel may be economised by increasing the size of the furnace, and by which a sufficiently powerful blast may be produced. From my own experiments, I am led to believe, that the catalan forge will not answer except when the ores of the peroxide are procurable, in consequence of a peculiar property possessed by the magnetic oxide. But I am of opinion that the German, 'steuck often' might be used with great advantage, and the complete reduction of the ore at one

operation to malleable iron, is easily effected. One of these furnaces may be easily built for ten rupees. The bellows for it may cost about ten rupees. A small tilt hammer about fifty rupees, and the whole stock in trade capable of turning out a ton of bar iron per week, need hardly cost one hundred rupees. I believe that nearly all the jungly tracts of Southern India are granitic, and in them of course fire clay and magnetic iron sand abound. Charcoal can be made at about fifty pounds for an anna, and the iron sand is sold at thirty pounds for an anna, which prices are as cheap as the iron stone and coal are now sold for in South Wales.

21. With regard to the quality of the iron produced by the native methods, we have the most contradictory remarks from various authors; and indeed I am not aware of any good researches upon this point having been published. From what I have seen of Indian iron, I consider the worst I have ever seen to be as good as the best English iron, and that its supposed defects arise from its almost always containing a considerable portion of steel.

22. If it is attempted to bend a bar of English iron of inferior quality when cold, it will be found to snap short off, almost without bending at all, and the fractured end will exhibit a series of minute glistening planes inclined at irregular angles, and which by the lens, will be seen to resemble exactly the spangles of 'kisk', or graphite, which appear upon the surface of highly carburetted cast iron. A bar of the best English bar iron, when bent cold, will exhibit on the sides of the bent angle a series of longitudinal fissures, evidently produced by impurities between the fibrous portions, and before it is bent as far as an angle of 120°, it will break, and the fracture will be half glistening, and the rest very much resembling lead when forcibly pulled asunder. This last portion is the pure iron, and when viewed endways, will generally appear nearly black. The glistening portions are portions of carburet imperfectly reduced. It is a common remark of authors, that pure iron is either granular or fibrous in texture, the former being produced by sudden cooling, and the latter by elongation under the hammer. This remark I consider, however, to be erroneous, and I have never found pure fibrous iron to become granular, if properly worked, although granular iron will become fibrous; not, however, by the mechanical effect of the hammering, but by the action of the fire and blast reducting the carburet. In working the best kinds of English iron, they let fall upon the anvil a quantity of red powder, which very much resembles

in appearance the residue left by burning the carbon separated by muriatic acid from cast iron. Even the charcoal-made English iron will hardly bear drawing out under the hammer without splitting, and a small rod will generally snap after bending it two or three times. English hoop iron, although it will stand curling up into a roll of about ¼ inch in diameter, yet on the slightest attempt to bend it longitudinally into a hollow trough, it will crack in three or four places immediately. The following remarks by Dr Ure (Dictionary of Manufacture) are evidently from a person practically acquainted with the subject. ‘The quality of iron is tried in various ways; 1. As first by raising a bar by one end, with the hands over one's head, bringing it forcibly down to strike across a narrow anvil at its centre of percussion on one-third from the other extremity of the bar, after which it may be bent backwards and forwards at the place of percussion several times. 2. A heavy bar may be laid obliquely over props near its end, and struck strongly with a hammer with a narrow pane, so as to curve it in opposite directions, or while heated to redness, they may be kneed backwards and forwards at the same spot on the edge of the anvil. This is a severe trial which the hoop (Swedish iron) bears surprisingly, emitting as it is hammered, a phosphoric odour peculiar to it, and to the bar iron of Ulverstone, which also resembles it in furnishing a good steel. The forging of a horseshoe is reckoned a good criterion of the quality of iron.’

23. There is hardly one of the above tests, which good native iron of Southern India will not bear, and some iron which was produced in my own furnaces, has stood drawing out under the hammer into a fine nail rod not th inch thick, without splitting, and when kneed backwards and forwards, only broke after six or seven times. When twisted like a hank of whipcord until some of the plies began to draw out, no fracture occurred in any part, and a half inch bar ¼ inch in thickness bore doubling together *cold*, and the angle hammered down close with very little signs of separation between the fibres. As I have shown that native Indian iron contains steel, the quality can be easily tested by a very simple method, which is merely to bring the middle part of the bar to a red heat, and then immersing it in water, by which all the steely portions will be rendered brittle, without the fibrous portions being affected. An inch bar of good iron thus treated will bear a dozen blows of a heavy sledge hammer before it will break.

24. The fractured end of a bar of Indian iron presents a very different appearance to that of English, none of the glistering portions being visible, but if not fibrous, it shows the granular fracture of an aggregation of crystalline grains, either large or small, according to the hardness of steel which it contains. The iron thus examined may be separated for different purposes into four different kinds.

1st. Completely fibrous. Fit for nails, horseshoes, bolts, straps, crowbars, tongs, & c., in which softness is of no consequence, and great tenacity and ductility are requisite.

2nd. Half fibrous and half granular. Fit for axle trees, wheel tyres, & c., where tenacity and strength are both requisite.

3rd. Nearly all granular and steely, resisting the file in some parts, and brittle, breaking with one or two blows of the sledge. Fit for lathe bars and iron work in mathematical instruments, where hardness is requisite to prevent bruising.

4th. All granular, with the fine snow-white fracture of cast steel in parts. Only touched by the file in some parts. Very brittle unless annealed. Hard, and resists the hammer in forging, drawing out with difficulty, and cracking slightly at the edges unless carefully forged. Fit for plough shares, spades, and pickaxes, bricklayers' trowels, & c. which require to be hard.

25. Some native made iron which I have met with was difficult to forge, from its cracking very much under the hammer at the edges of the bar, though not otherwise deficient in tenacity; but as such iron is not common, I have not had opportunities of examining it properly. The native workmen say, that iron of this kind is quite as ductile as any other if it is forged with bamboo charcoal. Should this be a fact, it seems to be well worth the attention of chemists, considering that the coat of the bamboo contains much finely divided silica, and remembering that the English smiths, when welding together steel and iron, use freely large quantities of a white quartzose sand. It is probable that it is this last kind of Indian iron, which has by some been called 'red short', which is however a mistake. The English red short iron snapping off like a carrot when bent.

XVII

ASPECTS OF TECHNOLOGY IN WESTERN INDIA

(Dr Helenus Scott, M.D., to Sir Joseph Banks, President Royal Society, London (circa 1790-1801).)

Bombay, January 7, 1790.

I had the pleasure of receiving a letter from you by the *Ponsborne* dated December, 1788.

I have according to your wish endeavoured to inform myself respecting the methods used by the natives of the country for cleaning cotton. Captain Dundas will bring you the only instrument they have for the purpose.

I have for several years past been attentive to the methods used by the natives of this country for dyeing their cotton cloths and I think I have discovered the singular circumstance by which they are enabled to give that permanency to the colour which is so much admired. I am unable to give any theory of the operation of the chief substance they use and without which they can do nothing. It seems in all cases when a cloth is wetted with an infusion of it and a solution of alum, and then put into a vegetable colour to deposit something which has a strong attraction at the same time for the cloth and the colouring principle and which renders them ever afterwards inseparable. It seems to have the same effect on animal dyes, if I be not mistaken on some trials that I have had made with cochineal. The natives have many methods of altering the colour of vegetables or heightening their splendour simply by the addition of acids or of alum or of water in which...(Indecipherable in original.—*Editor.*) of iron had been infused or the recent excrement of some animal while it still retains much of the volatile alkali & c. But I know that to render these colours durable on the cloth (after separating a number of circumstances that only in appearance conduce to that end) they have no other method than the one I have mentioned. If this appears to you a matter of consequence as the cotton manufacturers are now in so flourishing a condition in England I shall at some future period communicate more particularly their method to you.

It is extremely difficult to learn the arts of the Indians for the same caste, from father to son exercises the same trade and the punishment of being excluded from the caste on doing anything injurious to its interests is so dreadful that it is often impossible to find an inducement to make them communicate any thing. They in general care nothing for money if they have enough to buy their food and a little is sufficient for that purpose. As their knowledge of the arts is never communicated by writing nor printing nor their experience reduced to general laws by theory the difficulty of information is again increased.

The theory you have sent me of a gentleman whose name you do not mention regarding the caves and statues of this country appears to me very ingenious...

About 13 years ago on digging on the Esplanade of the Fort of Tannah in Salsette the workmen came to a stone box which contained plates of copper joined three and three by faring the same metal...

These plates are made of good malleable copper and worked with considerable art...From all this we may conclude that at so distant a period of 700 years copper was not a scarce article among the Indians as in this instance they use it so plentifully, and that it was not a new one for it is here a pure metal and worked with skill.

The people of this country from the pliable and human disposition of their minds increased by their climate and especially by their singular religion have always been able to assuage the fury of their conquerors and while they have remained a distinct body from those by whom they have been subdued, they have retained through all the revolutions of their government and perhaps from ages very remote a considerable degree of civilisation. I often think that their arts improved by the practice of so many years might afford matter of entertainment and instruction to the most enlightened philosopher of Europe. But seldom I believe have they been viewed by those whose knowledge and temper of mind and circumstances have enabled to make such enquiries with advantage. If I find it agreeable to you I shall now and then give you my observations on some of those objects of science.

I do not flatter myself that I am well qualified for such an undertaking which requires an intimate knowledge of natural philosophy and chemistry and the arts depending on them. But I hope to meet with your indulgence. I might also plead in excuse of my errors that my time is entirely occupied with the fatiguing duties of my profession.

I have sent you in the box that contains the machines for cleaning cotton a piece of the cinnabar of this country which is made in masses sometime of 100 lb weight at a single sublimation. I have very frequently tried to make cinnabar by the methods recommended in Europe but I have never been able to procure any so far, as the Indian at one operation. I should be glad to be informed if you wish to know the Indian method of making it...I find, too, that they make corrosive sublimate in this country but I never have been able to see the process.

I shall at an after-period give you an account of the methods of preparing the lime or as it is called chunam of this country for buildings, terraces, aqueducts, works below the surface of water and for the bottoms of ships where it answers the purposes of copper.

For works below the surface of water I think the Indians have an excellent method of preparing their chunam. In a few hours it acquires great solidity and especially the part of it that binds together the large stones which face the walls; for most trouble is taken with the chunam for that purpose. One of the chief ingredients is a kind of unrefined sugar which appears by Mr Bergman's experiments to contain more of the disengaged saccharine acid than refined. With this and some other substances the chunam is carefully mixed for a length of time and is occasionally wetted with a solution of the sugar in water. Does the great hardness that the lime so soon acquires below the surface of water depend on its attraction for the saccharine acid?...As far as I can learn no one has yet practiced a method similar to that used in this country...

Bombay, January 19, 1792.

I had the favour of your letter of the 17th March 1791 by the *Essex*, the last ship that arrived here from Europe. I was greatly flattered to find that what I had done was acceptable to you and that you give me encouragement to move into the subject which I proposed to you. The arts of India certainly afford the most interesting objects of enquiry. I have been always of that opinion and in the course of my stay in this country I have made many observations that in my opinion are worthy of being known. I hope by the *Essex*, which will sail in about six weeks hence, I may be able to begin the subject. Indeed, it is a field in which there are so many beautiful objects that one is distracted with the variety and at a loss to determine which is most worthy of his attention.

I think at present that I shall conduct myself in this enquiry in the following order, or in one somewhat similar.

First Their knowledge of medicine and surgery:

In medicine I shall not be able to praise their science very much. It is one of those arts which is too delicate in its nature to bear war and oppression and the revolutions of governments. The effects of surgical operation are more obvious, more easily acquired and lost by no means so readily. Here I should have much to praise. They practice with great success the operation of depressing the crystalline lens when it becomes opaque and from time immemorial they have cut for the stone at the same place which they now do in Europe. These are curious facts and I believe unknown before to us.

Secondly Their art of dyeing in which I have lately gotten much knowledge. Here I shall venture to recommend some substances as highly worthy of becoming articles in commerce and of being employed by our artists in Europe.

Thirdly Their method of using lime in buildings & c. in which also some new substances must be recommended.

Fourthly Their methods of making soap, gun powder, indigo, ink, cinnabar, vitriol and iron and copper, alum & c. & c.

I shall at the same time send you plentiful specimens of all the agents in their arts and think myself sufficiently repaid if you think I have contributed anything to the interests of science. Should anything that I transmit to you appear to be worthy of being printed I can have no objection to it. I need not beg of you to let nothing appear which you in the least disapprove of. I am very sensible of the honour you do me in offering the Philosophical Transactions for this purpose...

I have lately observed that the natives make immense quantities and at a very low rate a good fossile alkali by burning seaweeds. This appears to me also a valuable salt. I shall send you specimens of it. I think it would not cost here above 2-10 £ or 3 £ a ton.

Bombay, February 7, 1792.

I wrote you a few lines in much haste by the *Raymond* which sailed from hence about a month ago. I had not yet had leisure to do much in the subject I proposed to myself, but I hope to be able to send you my first attempt in a short time hence. I can not, however, defer any longer making you acquainted with the most useful substances that the Indians employ in their arts. You will afterwards see these uses more particularly mentioned when I describe their methods of preparing lime; of fixing colours, or of producing them.

This astringent substance is the drupa of a tree which grows very plentifully in the neighbourhood of this island, though I have not hitherto had the good fortune to see it in flower. From a long acquaintance with it I am well persuaded that it would make a cheap and good substitute for galls in dyeing and in other arts. In fixing some colours it has hidden powers which galls do not possess as I have experienced in the dyes of this country.

Your chemists will see at once the general nature of this substance and your artists will find how far, by such an agent, they can produce the effects to which they have been accustomed; but it is only future experience that can discover those properties by which it may differ from every other astringent substance.

This drupa with vitriolated iron, makes a very fine black and I have frequently made writing ink with it that was good in every respect. This letter will give you a specimen of it...I have been at the expense of sending 3 tons of it at once...

Bombay, January 8, 1794.

You will think the paper on putting on noses on those who have lost them an extraordinary one. I hope to send you by the later ships some of the Indian cement for uniting animal parts.

I enclose in one of the boxes a specimen of a kind of steel which is called wootz and is in high esteem among the Indians. It appears to admit of a harder temper than any thing we are acquainted with. I should be happy to have your opinion of its quality and composition. It is employed here for covering that part of gun-locks which the flint strikes, for cutting iron on a lathe, for chisels for cutting stones, for files and saws and for every purpose where excessive hardness is necessary. You must carefully observe that it can not bear any thing, beyond a very slight red heat, which makes its working very tedious to the blacksmiths. It has a still greater inconvenience. It can not be welded with iron or steel. It is only joined to them by screws and other contrivances. The blacksmiths who work in wootz generally consider it as a separate art and do not work in iron. When the heat is a little raised above a slight red heat part of the mass seems to run and the hole is lost; as if the substance consisted of metals of different degrees of fusibility...

Bombay, January 19, 1796.

I sent on some days ago by *Captain Villet* two boxes. One contains the god Gunnes, the other I find contains 183 lb of wootz (or butt) and 9 pieces of brass containing many figures from the Hindoo mythology. You may keep for your own trials one cwt. of the wootz and give the remainder to Dr Johnson.

In the little packet that contains this letter I send you a few of our newspapers where you will find some little essays that may afford you amusement. They certainly are not fit for the eyes of a critic. But we ought to meet with great indulgence separated as we are from the aids of science. You will also find the seeds that in my last letter I commend so highly as an agreeable and nutritious vegetable. In this packet too you will find a piece of *Caute*, the cement for noses. I hope soon to write you more fully on some subjects that appear interesting to me.

Bombay, August 15, 1801.

I received your interesting letter of the 23rd December last and as far as I am able at present I shall answer the different questions that you propose.

The natives of Malabar have made iron from time immemorial. I send you in a box about one or two cwt. of their iron after one fusion...I also send you a specimen of their ore. I can not pretend to say to what extent we might procure iron in Malabar for it has hitherto been made there only for their own purposes...I send you a sketch of a Malabar smelting furnace taken on the spot by my friend Major Walker now one of the commissioners for that province, which will give you an idea of their method. It combines together the air and blast furnace and is found to be very sufficient for their purposes...Manufacture of iron by the expenditure of fuel would do no injury there to other arts...Some of the Malabar blacksmiths work admirably in iron. I have seen for instance a pair of pistols made by them which were not inferior in beauty nor probably in any other respect to the best that are manufactured in London.

Copper as far as I know is not manufactured in India...

You are not unacquainted with the general use that is made of the cannabis in this country for intoxication. I am assured that its effects are less injurious and still more agreeable than opium. Those who get into a long habit of taking it can never again relinquish it. The common way of using it is to mix it with tobacco and to smoke them together. At times they bruise the leaves and drink their juice. Would it not be worth while to ascertain the effects of the cannabis as a remedy for disease, for opium with all its excellent qualities has also its disadvantages...

I have now I think mentioned all the heads of your letter but I beg leave to draw your attention for a moment to *dammer* a substance in universal use through the whole eastern world and of the greatest utility. It has often appeared to me very extraordinary that this unrivalled vegetable product should never have been brought into general use in Europe for on many occasions you have no sufficient substitute for it. We have kept our eyes in this country on diamonds and pepper and pearls while we have neglected the substances that would have improved our manufactures or created new arts among us. I take notice of *dammer* at present as you seem particularly desirous of getting substitutes in this country for the materials which are brought from the northern nations for our navy. *Dammer* dissolved in oil by heat is employed for covering the bottoms of ships, or in such as are coppered, for paving the seams of those parts that are above the copper. For those purposes it answers admirably well in this country as it does not soften by the heat of the sun. It is employed for covering wooden vessels for retaining water, or for channels that conduct it, for securing ammunition chests or powder barrels from wet and for many purposes of a similar kind. Although it is sometimes used as a varnish for terraces and other works made of lime, yet it does not last long for such purposes for the lime assisted by moisture decomposes it. It would be endless to specify the uses for which *dammer* is daily employed in this country. In order to apply it, it must as I have said be dissolved in oil by heat and applied while still liquid and hot. On cooling it becomes hard. I send you two specimens of *dammer*. The whitish kind is by far the most esteemed though the other sort is employed for many purposes. There can be no doubt but that you would find *dammer* in this way an excellent substitute for pitch and tar and for many purposes much superior to them.

Mr Philips in his rope work here has lately tarred our hemp and made it into rope that is supposed to be equal to any thing of the kind in Europe. He wants nothing but encouragement to do it on an extensive scale.

I may observe to you that I have lately learnt that there is a glutinous vegetable substance the produce of this country which has been employed (I fancy by the natives) as we employ tar, for securing the ropes from the effects of the weather. Mr Philips has seen ropes thus prepared. He says they are excellent.

Perhaps this may be a real improvement, for the tarring of hemp certainly weakens it while it preserves it from moisture. On this subject you need not doubt but that I shall make further enquiry...

The box contains the specimens of hemp and dammer.

Appendix I

Sources

Chapter

I. *Bramin's Observatory at Benares*, by Sir Robert Barker, was first published in the *Philosophical Transactions* of the Royal Society, London (Vol.67 for 1767, pp.598-607 and plates) under the title 'An account of the Bramin's Observatory at Benares'. The supplementary note by Colonel T.D. Pearse is taken from 'Memoir of Colonel Thomas Deane Pearse', referred to in No. IV below.

II. *Remarks on the Astronomy of the Brahmins*, by Prof. John Playfair, was first published under the same title in the *Transactions* of the Royal Society of Edinburgh (Vol.II for 1790, part I, pp.135-192).

III. *Hints Concerning the Observatory at Benares*, by Reuben Burrow, is on ff.263-76 in Add Ms.29233 amongst the Warren Hastings Papers in the British Museum. This paper is originally titled 'Hints concerning some of the Advantages derivable from an Examination of the Astronomical Observatory at Benares'. The last sheet of this paper is marked 'Mr Burrows' and a reference to it is made by R. Burrow in a letter addressed to W. Hastings on 12 June 1783.

IV. *On the Sixth Satellite of Saturn*, by Col. T.D. Pearse, is No.A.P.5/22 in the Archives of the Royal Society, London. It is in the form of a letter from Col. T.D. Pearse to the Secretary of the Society. A slightly varied version of it is included in the 'Memoir of Colonel Thomas Deane Pearse' originally published in the *British Indian Military Repository* for 1822-3. (This Memoir has been subsequently reprinted in *Bengal: Past and Present*, Vol.2-7).

V. *A Proof that the Hindoos had the Binomial Theorem*, by Reuben Burrow, was first published under the same title on pp.487-97 in Vol.II (1790) of the *Asiatic Researches*.

VI. *Hindu Algebra*, by H.T. Colebrooke, was first published in 1817 titled *Dissertation* in his 'Algebra with Arithmetic and

Mensuration, from the Sanscrit of Brahmegupta and Bhascara'.

VII. *Operation of Inoculation of the smallpox as performed in Bengall*, is an extract from a letter dated Calcutta, 10th February, 1731, from Ro. Coult to Dr Oliver Coult, giving 'An account of the Diseases of Bengall'. It is on ff.271v-272r in Add Ms.4432 amongst the Royal Society papers in the British Museum.

VIII. *An account of the Manner of Inoculating for the smallpox in the East Indies*, by J.Z. Holwell, F.R.S., was published by him in 1767 under the same title and 'inscribed to the learned the President, and Members of the College of Physicians in London'. (The sub-title to the publication reads, 'With some Observations on the Practice and Mode of Treating the Disease in those Parts'.)

IX. *The Method of Making the Best Mortar at Madrass in East India*, by Hon'ble Isaac Pyke, Governor of St Helena, was first published under the same title on pp.231-5 in Vol.37 (AD 1732) of the *Philosophical Transactions*.

X. *The Process of Making Ice in the East Indies*, by Sir Robert Barker, F.R.S., was first published under the same title on pp.252-7 in Vol.65 (AD 1775) of the *Philosophical Transactions*.

XI. *Uses of the Son and Manufacturing of the Hindostan Paper*, by Lt. Col. Ironside, was first published on pp.99-104 of Vol.64 (AD 1774) of the *Philosophical Transactions*. It was then titled 'Of the Culture and Uses of the Son or Sun—plant of Hindostan, with an Account of the Manner of Manufacturing the Hindostan Paper'.

XII. *Indian Agriculture*, by Col. Alexander Walker, from a much larger work (circa 1820) on the agriculture of Malabar and Guzarat, is taken from 184.a.3 (pp.577-654) amongst the Walker of Bowland Papers in the National Library of Scotland.

XIII. *On the Drill Husbandry of Southern India*, by Captain Thos Halcott, originally in the form of two letters, was published on pp.352-6 in the 1st volume of 'Communications to the Board of Agriculture' published in 1797. It was then titled 'On the Drill Husbandry of the East'.

XIV. *Iron Works at Ramanakapettah*, by Dr Benjamin Heyne, was originally sent by him in 1795 to the Governor of Madras. It is then titled as 'Doctor Heyne's Report of the Iron

Works at Ramanakapettah' and this version is taken from Vol.1 (No.613) of the Board's Collections in the India Office (IOR:F/4/I). An edited version of it was also published by Dr Heyne in 1814 as No.13 'Tracts, Historical and Statistical on India'.

XV. *The Mode of Manufacturing Iron in Central India*, by Major James Franklin, is in the India Office Library as MS EUR D 154, and is noted as 'Received from Secretary May 19, 1835'. The whole of this document along with the seven plates (but excluding the map) is published here. The original is titled 'Observations on Several Iron Mines, in the Central Part of India, with an account of the Indian Mode of Manufacturing Iron and Plans of the Machinery and Implements'.

XVI. *Manufacture of Bar Iron in Southern India*, by Captain J. Campbell, Assistant Surveyor General, Madras, was written around 1842 and was published in *The Calcutta Journal of Natural History* for 1843 (Vol.3, pp.386-400) under the same title.

XVII. *Aspects of Technology in Western India*, consists of extracts from letters addressed from Bombay by Dr H. Scott to Sir Joseph Banks, President of the Royal Society, London, during 1790-1801. The extracts reproduced here are from Add Ms.33979 (ff.1-13; 127-30; 135-6; 233-6); Add Ms.33980 (ff.305-310) and Add Ms.35262 (ff.14-5) in the British Museum.

Appendix II

Biographical Notes on Authors*

BARKER, Sir Robert (d. 1789), for some time commander in chief in Bengal, author of Chapters I and X, probably first came to India about 1749. He was promoted brigadier-general in 1770 and commander in chief thereafter. After a lively quarrel with Warren Hastings he left India and on reaching England was elected member of parliament. He seems never to have spoken in parliament, but in March 1781, was rewarded with a baronetcy for his consistent vote with the government.

BURROW, Reuben (1747-92), mathematician, author of Chapters III and V, was born 30th December 1747, near Leeds. He showed a taste for mathematics, and after various jobs, was appointed around 1770, assistant to Maskelyne, then astronomer-royal, at Greenwich. In 1782 he accepted an appointment in India, procured by his patron, Col. Henry Watson, for many years chief engineer in Bengal. In Bengal he was appointed mathematical teacher of the engineers' corps and was connected with the proposed Trignometrical Survey of Bengal. He was one of the first members of the Asiatic Society. He died at Buxor on 7th June 1792.

COLEBROOKE, Henry Thomas (1765-1837), author of Chapter VI, was the son of Sir George Colebrooke, the head of an old and wealthy firm of bankers, and chairman of the East India Company in 1769. He came to India in 1782, was appointed assistant collector in Tirhut in 1786; during 1799-1801 he was Resident to the court of Nagpur; and in 1807 attained a seat on the Governor General's Council from which he retired after a total service of thirty-two years. The (British) *Dictionary of National* Biography calls him the 'first great Sanscrit scholar of Europe'.

HEYNE, Dr Benjamin, author of Chapter XIV, was acting Company's botanist employed in the Madras administration. In 1814 he published his 'Tracts, Historical and Statistical on India'.

HOLWELL, John Zephaniah (1711-1798), Governor of Bengal, author of Chapter VIII, was born in Dublin on 17th September 1711. He came to Calcutta, as Surgeon's mate to an Indiaman in February 1732 and practised his profession in Calcutta from 1736 onwards. He was temporarily Governor of Bengal from February to July 1760. His contribution to Eastern knowledge called forth the warm acknowledgement of Voltaire. Holwell died on 5th November 1798.

PEARSE, Thomas Deane (d. 1789), colonel, author of Chapter IV and supplementary note to Chapter I, born about 1738, was appointed second lieutenant Royal Artillery on 24th October 1761 and was transferred to the East India Company's service in February 1768. In India he was high in the favour of Warren Hastings, and acted as Hasting's second in his duel with Sir Philip Francis on 17th August 1779. Pearse died on the Ganges on 15th June 1789.

PLAYFAIR, John (1748-1819), mathematician and geologist, author of Chapter II, was born near Dundee (Scotland), on 10th March 1748. He graduated in 1765. He then completed his theological course, and was licenced by the presbytery as a minister in 1770. He was elected moderator of Synod, at Liff in 1774. In 1785 he became joint professor of mathematics in the university of Edinburgh, and in 1805 exchanged his mathematical chair for the professorship of natural philosophy in the same university. Playfair was one of the original members of the Royal Society of Edinburgh, of which he subsequently became general secretary and held this post till his death. He was elected a Fellow of the Royal Society in 1807.

SCOTT, Helenus (1760-1821), writer of the letters given in Chapter XVII, entered the medical service of the East India Company, and served chiefly in the Bombay presidency. After thirty years in India he returned to England, and began practice at Bath. In 1815 he was admitted a licentiate of the college of physicians, in London, and in 1817 began to practice as a physician in Russell Square, London. In the same year he contributed an interesting paper to the 'Transactions' of the Medico-Chirugical Society on the use of nitromuriatic acid in medicine. He used it on a wider range of disease than is now customary; but its frequent employment in the treatment of enteric fever and other maladies at the present day (circa 1900) originates in his advocacy of its merits. He attained to considerable practice, and died on 16th November 1821.

WALKER, Alexander (1764-1831), brigadier-general, author of Chapter XII, was born on 12th May 1764. He was appointed a cadet in the service of the East India Company in 1780. He took part in the last war against Tippoo, and was present at the battle of Seedaseer in 1799 and at the siege of Seringapatam. In June 1802, Walker was appointed as Political Resident at Baroda. He returned to England in 1810 and in 1822 was called to the Government of St Helena. He died at Edinburgh on 5th March 1831, soon after retiring from the governorship of St Helena. While in India Walker formed a valuable collection of Arabic, Persian, and Sanscrit manuscripts, which was presented by his son, Sir William in 1845 to the Bodleian, Oxford, where it forms a distinct collection. His voluminous papers in English are in the National Library of Scotland, Edinburgh.

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DHARAMPAL: LIFE AND WORK

Born in 1922, Dharampal had his first glimpse of Mahatma Gandhi around the age of eight, when his father took him along to the 1929 Lahore Congress. A year later, Sardar Bhagat Singh and his colleagues were condemned to death and executed by the British. Dharampal still recalls many of his friends taking to the streets of Lahore, near where he lived, and shouting slogans in protest.

Around the same period, there were excited discussions, especially in school, about whether the British should leave India. Some were against *swaraj* because they feared invasion of the country by Afghan tribesmen and others. With many others his age, Dharampal tended more and more towards the *swaraj* option. Though he underwent western education throughout school and college, his animosity to British rule grew year by year. By 1940, he had started to wear *khadi* regularly—a practice he follows even now—and even tried to take to spinning the *charkha* for a while.

In 1942, he was present as a fervent spectator at the Quit India Session of the Congress in Bombay and he thereafter joined the Quit India Movement. He was active in it till he was arrested in April 1943. After two months in police detention, he was released but externed from Delhi.

Dharampal recalls he was one of countless people who believed that once the British were gone, India would be rid of its misfortunes, particularly its state of disorganisation and impoverishment.

In August, 1944, he was introduced to Mirabehn by his friends. He joined her soon thereafter, at what came to be known as the Kisan Ashram, situated midway between Roorkee and Haridwar. He stayed with Mirabehn, with occasional absences in Delhi (1947-48) and England (1948, 1949) till about 1953 when she retired, first to the Himalayas, and a few years later, to Europe. But the contact stayed. Dharampal met her again for the last time in July 1982 in Vienna, about two weeks before her death. On that day, they talked together for some 6-8 hours in the quiet of the Vienna woods.

Earlier, during 1947-48, Dharampal had come in close contact with Kamaladevi Chattopadhyaya, Dr. Ram Manohar Lohia, and with numerous younger friends in Delhi. He was then associated with an attempt at cooperative rehabilitation of refugees from Pakistan. (He was a member of the Indian Cooperative Union which was founded in 1948 with Kamaladevi as its president.)

The following year, while in England, Dharampal got married to Phyllis who was English. Afterwards, they both decided to live in India. On their way back, they spent some time in Israel and visited a few other countries as well. In 1950, the community village of Bapugram in the Pashulok area, near Rishikesh, began to be formed. Dharampal and Phyllis lived in it till 1953. He returned to England with his family in 1954.

He was back in Delhi again from early 1958 to 1964 with his wife, son and daughter. He now took up the post of General Secretary of the Association of Voluntary Agencies for Rural Development (AVARD); Kamaladevi was its first president. Soon thereafter, Jayaprakash Narayan agreed to be the president of AVARD. (He remained president till about 1975.)

For about two years (1964, 1965) Dharampal worked with the All India Panchayat Parishad (A.I.P.P.) as Director of Research and spent

more than a year in Tamilnadu collecting material that was later published as *The Madras Panchayat System*. Earlier, in 1962, he had already published a smaller book containing the proceedings of the Indian Constituent Assembly relating to the discussion on the subject of “The Panchayat as the Basis of India’s Polity”.

From Madras, for family reasons, Dharampal once again moved to London in early 1966. His son had met with a serious accident.

By then he was also keen on a detailed study of the Indo-British encounter during the 18th and 19th centuries. This time he stayed on in London till 1982, but visited India in between. In England, he did not have much of an income. There was also a family to support. But notwithstanding all this, he became a regular visitor to the India Office and the British Museum and spent most of his time poring over the archives. Photocopying required money. Oftentimes, old manuscripts could not be photocopied. So he copied them in long hand, page after page, millions of words, day after day. Thereafter, he would have the copied notes typed. He thus retrieved and accumulated thousands of pages of information from the archival record. When he returned to India, these notes—which filled several large trunks and suitcases—proved to be his most prized possessions.

From around 1958, Dharampal had developed an association with Sevagram, especially because of Annasaheb Sahasrabudhe. He spent around a month in Sevagram in 1967, where he did his first writing based on the 18th-19th century data he had collected. His next long stay in Sevagram was from December (1980) to March (1981) when he completed *The Beautiful Tree*. From around August 1982 to 1987, he was mostly in Sevagram with occasional sojourns in Madras.

Dharampal was president of the Patriotic and People-Oriented Science and Technology (PPST) group. He was also closely associated with the Centre for Policy Studies located in Madras.

His wife died in London in 1986.

From 1993, he has been living largely at Ashram Pratisthan in Sevagram.

DHARAMPAL • *COLLECTED WRITINGS*

Volume II

CIVIL DISOBEDIENCE IN INDIAN TRADITION

DHARAMPAL • *COLLECTED WRITINGS*

Volume I
Indian Science and Technology in the Eighteenth Century

Volume II
Civil Disobedience in Indian Tradition

Volume III
The Beautiful Tree: Indigenous Indian Education
in the Eighteenth Century

Volume IV
Panchayat Raj and India's Polity

Volume V
Essays on Tradition, Recovery and Freedom

CIVIL DISOBEDIENCE IN INDIAN TRADITION

by
Dharampal

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Civil Disobedience in Indian Tradition
By Dharampal

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To
Annasaheb Sahasrabudhe

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Foreword

The ancients held that the highest form of knowledge is self-knowledge and that he who achieves that knowledge achieves all. It seems to me that the value of self-knowledge holds good for nations as well. No matter how one defines a nation—and it has not been found easy to do so—its essence seems to lie not in its outward attributes but in the mental world of those who comprise it. Of the ingredients of this inner world, the most important is self-image, that is, the image that the people comprising a nation have of themselves and their forefathers.

During the British period, the needs of imperialist rule dictated that Indians be pictured as an inferior people in respect to material, moral and intellectual accomplishments. This deliberate denigration of the Indian nation was furthered by the incapacity of the foreigner to understand properly a civilisation so different from his own. So, in course of time, as our political subjugation became complete, we happened to accept as real the distorted image of ourselves that we saw reflected in the mirror the British held to us.

Not a small part of the psychological impetus that our freedom movement received was from the few expressions of appreciation that happened to fall from the pens or lips of Western scholars about Sanskrit literature, Indian philosophy, art or science. Sometimes these foreign opinions about past Indian achievements were seized upon and inflated out of all proportions so as to feed the slowly emerging national ethos.

After the first few years of euphoria since Independence, a period of self-denigration set in during which educated Indians, particularly those educated in the West, took the lead. Whether in the name of modernisation, science or ideology, they ran down most, if not all, things Indian. We are not yet out of this period. I am not suggesting that what is wrong and evil in Indian society or history should be glossed over. But breast-beating and self-flagellation are not conducive to the development of those psychological drives that are so essential for nation-building, nor so is slavish imitation of others.

One of the reasons for this state of affairs is lack of sufficient knowledge about our history, particularly of the people's social, political and economic life. One of the faults of our forefathers was their lack of sense of history, and their proneness to present even historical fact in the guise of mythology. As a result, even after long years of modern historical research, in India and abroad, our knowledge happens to be limited—particularly in the field of social history. Also there are long gaps or periods of darkness about which not much of anything is known. One such period was that between the decline of the Mughal power and the arrival of the European trading companies and the ultimate consolidation of British power. That period was undoubtedly one of political disintegration. Yet, the material researched by Shri Dharampal and published herein reveals the survival of amazing powers of resistance to the state in the common people—'the Lohars, the Mistrees, the Jolahirs, the Hujams, the Durzees, the Kahars, the Bearers, every class of workmen', to quote the Acting Magistrate of Benares in 1810—when, in their opinion, it became oppressive or transgressed the limits of its authority.

The behaviour of the five hundred and odd princes towards their people during British rule had created the general impression that the king in Hindu polity was a tyrant and there was no limit to his power as far as it related to his subjects, who were supposed to be traditionally docile and submissive. Foreign and Indian studies of Hindu polity, no doubt, had revealed quite a different type of relationship, which allowed even for the deposition of an unworthy king by his people. But that was considered to be a mere idealistic formulation, true more in theory than in practice. The fact that texts on Hindu polity were agreed that the king was never conceived to possess absolute power and that he was in practice limited by *dharma*, that is, the system of duties, responsibilities and privileges that had evolved through the ages and come to be accepted by all concerned, was also not taken seriously. Instances of autocratic monarchs who defied the established *dharma* and got away with it were looked upon not as exceptions but as the rule.

The material brought together by Shri Dharampal in this volume throws quite a different light on the subject. The following pages describe, in the words of the then British officers, the *mass movements* of civil disobedience at Benares, Patna, Sarun, Moorshedabad and Bhaugulpore against the imposition of new taxes on houses and shops. Shri Dharampal is quite right when he declares: 'If the dates, (1810-12) were just advanced by some 110 to 120 years, the name of the tax altered and a few other verbal changes made, this narrative could be taken as a fair recital of most events in the still remembered civil disobedience campaigns of the 1920s and 1930s.' That the events described in the correspondence published here were not exceptions, is borne out by other instances given by Shri Dharampal of similar actions that were either contemporary or of earlier times in other parts of the country.

It would appear from a perusal of the papers reproduced here that there had developed in the course of Indian history an understanding between the ruled and the ruler as to their respective rights and responsibilities. Whenever this traditional pattern of relationship was disturbed by an autocratic ruler, the people were entitled to offer resistance in the customary manner, that is, by peaceful non-cooperation and civil disobedience. It also appears that in the event of such action, the response of the ruling authority was not to treat it as unlawful defiance, rebellion or disloyalty that had to be put down at any cost before the issue in dispute could be taken up, but as rightful action that called for speedy negotiated settlement.

Such powers, and apparently well-practised methods, of popular resistance as described herein could not have sprung up suddenly from nowhere. They must have come down from the past as part of a well-established socio-political tradition. The fact these powers should have survived until the beginning of the nineteenth century even in areas that had long been under autocratic Muslim rule bears testimony to both the validity and vitality of the ancient tradition.

The saddest part of the story Shri Dharampal unfolds in the following pages tells of the conscious and calculated efforts of the British to destroy every vestige of the old tradition, which they looked upon as a continuing challenge to the very foundations of their rule. Whether it was to assert the 'dignity of the State' or for the 'maintenance of public tranquility' or for 'upholding those sentiments of respect which it appeared so essential that the community should entertain for the public authority' the traditional right of the people of peaceful resistance had to be given no quarter. The reason Shri Dharampal gives, with which I am in agreement, is the feeling the British rulers had of extreme insecurity. They could not feel safe until they had beaten the people into a state of unquestioning obedience. The ultimate sanction they relied upon to achieve this end was military force. Thus was brought about the spiritual death of the people of this country, which the Congress Working Committee must have had in mind when in its Declaration of Independence of 1930 (which used to be reiterated at tens of thousands of public meetings every 26th of January), speaking of the fourfold ruin of India—economic, political, cultural and spiritual—wrought by the British, it pinpointed 'compulsory disarmament' of the people and the 'presence of an alien army of occupation, employed with deadly effect to crush in us the spirit of resistance' as being the means of the country's spiritual ruin.

In an interesting and valuable section of his introduction, Shri Dharampal discusses the origins of Gandhiji's ideas of *satyagraha* and throws some new light on the subject. A point that emerges clearly from the discussion is that the primary source of inspiration behind Gandhiji's science of satyagraha was India's age-old traditional ruler-ruled relationship of which Gandhiji was well aware. In view of his explicit acknowledgement in *Hind Swaraj* of his debt to that tradition, it is rather surprising that none of his biographers or commentators, while they ranged far and wide in search of the origins, gave any attention to Gandhiji's own words. May be the reason has been that no trace having been left of the old tradition except for the observant eyes of one like Gandhiji (think of the case of the small principality in Saurashtra which he mentions in the *Hind Swaraj*), nor there being any historical evidence available of the 'nation at large' having 'generally used passive resistance in all departments of life' or of our ceasing 'to cooperate with our rulers when they displease us', Gandhiji's sweeping remarks were taken as examples of his 'usual' idealisation of the past. But Shri Dharampal's findings show that Gandhiji, though not a student of history, had a much deeper insight into it than most historians. Undoubtedly it was this intuitive quality that was one of the secrets of his extraordinary success as a leader of the people.

No less interesting and valuable is Shri Dharampal's discussion of the place of *satyagraha* in post-independence and democratic India. An oft-repeated criticism of government in free India—and one which has not lost its significance by repetition—is that it adopted without change the bureaucratic machine that had originally been designed by the colonial power for purposes of economic exploitation and suppression of dissent. One of the more malignant features of that machine is its continued adherence to the British imperialist theory that it is the duty of the people to obey first and then to protest. In fact, that view has been further strengthened by the convenient plea that the bureaucracy is no longer an instrument of an alien government but that of a democratically established national government. As a result, whenever there is a fast, a stoppage of work, a withdrawal of cooperation, the official reaction is neither talk, nor settlement until the popular action is withdrawn or put down. The consequence is that more often than not, the people concerned are driven to violent action, after which the government usually surrenders or makes a compromise. There is no doubt that *satyagraha* has often been resorted to for party-political gains, but had government conceded the right of the people to disobey and resist peacefully whatever seemed unjust or oppressive to them, a code of conduct would have evolved through the past 25 years that would have set the limits of the people's and party's action on the one hand and of the government's action on the other. The plea that in a democracy the people have the ultimate sanction of removing an unpopular government at the next general election has been effectively answered by Acharya Kripalani in the passage Shri Dharampal quotes in the introduction.

Jayaprakash Narayan

Author's Note

In 1965, during the course of a preliminary perusal of late eighteenth and nineteenth century British official material on India, I happened to read of a boycott and consequent organisational steps taken by some village communities during the 'Deccan Riots' of 1874 in the districts of Ahmednagar and Pune. The techniques employed by these village communities primarily against the money-lenders but also against all those who sided with the latter seemed essentially identical to those employed in the non-cooperation and civil disobedience movements of recent decades. Further research led me to several other apparently similar instances of nineteenth century non-cooperation and civil disobedience in different parts of India.

For me this information was wholly unexpected. It not only led to much questioning, but also persuaded me to re-read some of the writings of Mahatma Gandhi on the subject. Up to this time, like those I knew, I had taken it for granted that non-cooperation and civil disobedience were of very recent origin in India and owed their practice here to Gandhiji. Again, like many others I had also assumed that while Gandhiji had made them more perfect and effective he himself had initially derived them from Thoreau, Tolstoy, Ruskin and other Europeans. But re-reading *Hind Swaraj*, I found Gandhiji observing: 'In India the nation at large has generally used passive resistance in all departments of life. We cease to cooperate with our rulers when they displease us.'

I shared this passage of Gandhiji with a number of friends several of whom had known Gandhiji personally and had many times participated in his non-cooperation and civil disobedience movements. I found them similarly fascinated with the information I had acquired. The fascination however, to an extent, was tinged with incredulity. It seemed to many that the above observation of Gandhiji was more symbolic of his idealisation of the past than a confirmation that non-cooperation and civil disobedience had been one of the traditional modes of protest against authority in India. The never ending repetition of claims that the ordinary people of India had from time immemorial been subservient to whoever ruled over them; that they had little or no regard for such mundane things as society or politics seemed to have had a deep impact not only on those who knew Gandhiji well and followed him into battle but equally on those who were considered hostile or even indifferent to him. Such incredulity, it seemed to me, could be met only through a more detailed search and assembling of primary material on the subject.

The documents printed in this book (pages 57-172) are the result of this search and were compiled during 1966 from the relevant judicial and revenue records in the India Office Library, London. The first hint of the events described in them, however, came to me from the brief reference to them in Dr. Sashi Bhusan Chaudhuri's book *Civil Disturbances during British Rule in India 1765-1857*.

I am thankful to the authorities and staff of the India Office Library, the West Bengal State Archives and the Gandhi Smarak Sangrahalaya, Delhi for various facilities they made available to me during this search.

Though the compilation of the documents reproduced was completed in 1966 itself, the interpretation and presentation of the whole has only been done during the past few months, through the assistance of facilities and support extended by the Gandhi Peace Foundation. Unpublished Crown copyright materials in the India Office Library and India Office Records transcribed in this book appear by permission of the Controller of Her Majesty's Stationery Office, London.

Innumerable friends have shown great interest and offered advice as well as criticism on the material and interpretations presented here. I am grateful to all of them. I am specially obliged to Bernie Horowitz, Mohammad Rafiq Khan and Radhakrishna for affording me much of their time and attention in this regard. I am also thankful to Narendra Goyal for help in the production of this book.

The documents on pages 57-172 have been arranged in the order these would have been placed by the executing authorities in Benares, etc. in relation to correspondence with the Government at Fort William (Calcutta), or the Government of Bengal in its correspondence with London. This, it is hoped, would be helpful in the understanding of the events in Benares and other towns in the order they occurred.

The documents are reproduced here in their original spellings and punctuation. In spite of all possible care, a few typographical errors may remain. These, however, do not make any substantial alteration in the meaning of the concerned passages.

July, 1971 Dharampal

INTRODUCTION

Traditionally, what has been the attitude of the Indian people, collectively as well as individually, towards state power or political authority? The prevalent view seems to be that, with some rare exceptions, the people of India have been docile, inert and submissive in the extreme. It is implied that they look up to their governments as children do towards their parents. Text books on Indian history abound with such views.

The past half century or so, however, does not substantiate this image of docility and submissiveness. Many, in fact, regret the supposed transformation. But all, whether they deplore or welcome it, attribute it to the spread of European ideas of disaffection, and most of all to the role of Mahatma Gandhi in the public life of India. According to them, the people of India would have remained inert, docile and submissive if they somehow could have been protected from the European infection and from Mahatma Gandhi.

The twentieth century Indian people's protest against governmental injustice, callousness and tyranny (actual or supposed) has expressed itself in two forms: one with the aid of some arms, the other unarmed. The protest and resistance with arms has by and large been limited to a few individuals or very small groups of a highly disciplined cadre. Aurobindo, Savarkar, Bhagat Singh, Chandrashekhar Azad (to name a few), in their time have been the spectacular symbols of such armed protest. Unarmed protest and resistance is better known under the names of non-cooperation, civil disobedience and *satyagraha*. This latter mode of protest owes its twentieth century origin, organisation and practice to Mahatma Gandhi.

In the main, there are two views about the origins of non-cooperation and civil disobedience initiated by Gandhiji firstly in South Africa and later in India. According to one group of scholars, Gandhiji learnt them from Thoreau, Tolstoy, Ruskin, etc. According to the other, non-cooperation and civil disobedience were

Gandhiji’s own unique discovery, born out of his own creative genius and heightened spirituality.

The statements about the European or American origin of Mahatma Gandhi’s civil disobedience are many. According to one authority on Thoreau, Thoreau’s ‘essay, *Resistance to Civil Government*, a sharp statement of the duty of resistance to governmental authority when it is unjustly exercised, has become the foundation of the Indian civil disobedience movement.’[1] According to a recent writer, ‘Gandhi got non-cooperation from Thoreau, and he agreed with Ruskin on cooperation.’[2] According to yet another writer, ‘Gandhi agreed with Seeley only in order to apply the lesson learned from Thoreau, William Lloyd Garrison and Tolstoy. The lesson was that the withdrawal of Indian support from the British would bring on the collapse of their rule.’[3]

The protagonists of the second view are equally large in number, the more scholarly amongst them linking Gandhiji’s inspiration to Prahalada or other figures of antiquity. According to R.R. Diwakar, taking his inspiration from Prahalada, Socrates, etc., Gandhiji adapted ‘a nebulous, semi-religious doctrine to the solution of the problems of day-to-day life and thus gave to humanity a new weapon to fight evil and injustice non-violently.’ Taking note of the traditional Indian practices of *dharna*, *hartal* and *dasatyaga* (leaving the land with all one’s belongings), Diwakar comes to the conclusion that ‘their chief concern was the extramundane life and that too of the individual, not of the group or community’, and states ‘there are no recorded instances in Indian history of long-drawn strikes of the nature of the modern “general strike”.’[4] According to an analyst of Mahatma Gandhi’s political philosophy, ‘the Gandhian method of non-violent resistance was novel in the history of mass actions waged to resist encroachments upon human freedom.’[5] According to another recent student of Mahatma Gandhi, Gandhian non-cooperation and civil disobedience ‘was a natural growth and flowering of a practical philosophy implicit in his social milieu.’[6]

These two views are integrated in a recent introduction to Thoreau's essay, *On the Duty of Civil Disobedience*, referred to above. The writer of this introduction states:

> Thoreau's essay on civil disobedience marked a significant transition in the development of non-violent action. Before Thoreau, civil disobedience was largely practised by individuals and groups who desired simply to remain true to their beliefs in an evil world. There was little or no thought given to civil disobedience for producing social and political change. Sixty years later, with Mahatma Gandhi, civil disobedience became, in addition to this, a means of mass action for political ends. Reluctantly, and unrecognised at the time, Thoreau helped make the transition between these two approaches.[7]

Other writers, like Kaka Kalelkar[8] and R. Payne[9] though visualising some link which Gandhiji's non-cooperation and civil disobedience had with India's antiquity, nevertheless feel, as Kalelkar does, that it was 'a unique contribution of Mahatma Gandhi to the world community.' Kalelkar, however, does visualise the possibility that the practices of *traga* (Kaka Kalelkar incidentally appears to be the only modern writer aware of the practice of *traga.*), *dharna*, and *baharvatiya*, prevailing in Gandhiji's home area, Saurashtra, may have 'influenced the Mahatma's mind.'[10]

Recent works on ancient Indian polity, and the rights and duties of kings or other political authorities also seem to be in some conflict with the prevalent view of the traditional submissiveness of the Indian people. According to some, the very word 'Raja' meant 'one who pleases' and therefore any right of the king was subject to the fulfillment of duties and was forfeited if such duties were not performed. Further, an oft quoted verse of the Mahabharata states:

> The people should gird themselves up and kill a cruel king who does not protect his subjects, who extracts taxes and simply robs them of their wealth, who gives no lead. Such a king is *Kali* (evil and strife) incarnate. The king who after

> declaring, 'I shall protect you', does not protect his subjects should be killed (by the people) after forming a confederacy, like a dog that is afflicted with madness.[11]

Whatever may have been the ruler-ruled relationship in ancient times or the few centuries of Turk or Mughal dominance, in the late seventeenth and eighteenth century, according to James Mill, 'in the ordinary state of things in India, the princes stood in awe of their subjects.'[12] Further, according to Gandhiji, that 'we should obey laws whether good or bad is a new fangled notion. There was no such thing in former days. The people disregarded those laws they did not like.'[13] Elaborating on the idea of passive resistance, Gandhiji stated:

> The fact is that, in India, the nation at large has generally used passive resistance in all departments of life. We cease to cooperate with our rulers when they displease us. This is passive resistance.[14]

Giving a personally known instance of such non-cooperation, he added:

> In a small principality, the villagers were offended by some command issued by the prince. The former immediately began vacating the village. (It is possible that such recourse to the vacating of villages, towns, etc., as noted by Gandhiji and as threatened in 1810-11 at Murshedabad etc., was of a much later origin than the various other forms of non-cooperation and civil disobedience described in this volume. Resort to such an extreme step as the vacating of villages etc., indicates increasing alienation of the rulers from the ruled and further a substantial weakening of the strength of the latter. Such a situation is in glaring contrast to the situation where 'the princes stood in awe of their subjects'. Though such an extreme step at times may have still worked in relation to Indian rulers who were not yet completely alienated from the ruled in Gandhiji's young days, its potential use against completely alien rulers, such as the British, must have become very small indeed.) The prince became nervous,

> apologised to his subjects and withdrew his command. Many such instances can be found in India.[15]

It is not necessary to add that Gandhiji's discovery of civil disobedience is not just a borrowing from his own tradition. In a way it came out of his own being. His knowledge of its advocacy or limited practice in Europe and America may have provided him further confirmation. But it is the preceding Indian historical tradition of non-cooperation and civil disobedience which made possible the application of them on the vast scale that happened under his leadership.

It appears that Mahatma Gandhi as well as Mill had a more correct idea of the ruler-ruled relationship in India than conventional historians. Even without going far back into Indian history, a systematic search of Indian and British source materials pertaining to the eighteenth and nineteenth centuries should provide ample evidence of the correctness of Mahatma Gandhi's and Mill's view. Further, it would probably also indicate that civil disobedience and non-cooperation were traditionally the key methods used by the Indian people against oppressive and unjust actions of government. Even with a relatively cursory search, a number of instances of civil disobedience and non-cooperation readily emerge. These are recorded primarily in the correspondence maintained within the British ruling apparatus. For example, the Proceedings of the British Governor and Council at Madras, dated November, 1680 record the following response by 'the disaffected persons' in the town of Madraspatnam to what they considered arbitrary actions on the part of the British rulers:

> The painters and others gathered at St.Thoma having sent several letters to the several casts of Gentues in town, and to several in the Company's service as dubasses, cherucons or chief peons, merchants, washers and others and threatened several to murther them if they came not out to them, now they stopt goods and provisions coming to town throwing the cloth off of the oxen and laying the dury, and in all the towns about us hired by Pedda Yenkatadry, etc: the drum has beaten forbidding all people to carry any provisions or wood to Chenapatnam alias Madraspatnam and the men's houses that burnt chunam for us are tyed up and they forbid to burn any more, or to gather more shells for that purpose.[16]

This tussle lasted for quite some time. The British recruited the additional force of the 'Black Portuguese', played the less protesting groups against the more vehement, arrested the wives and children of those engaged in the protest, and threatened one hundred of the more prominent amongst the protestors with dire punishment. Finally, the incident seems to have ended in some compromise.

At a much later period, reporting on a peasant movement in Canara in 1830-31, the district assistant collector wrote:

> Things are here getting worse. The people were quiet till within a few days, but the assemblies have been daily increasing in number. Nearly 11,000 persons met yesterday at Yenoor. About an hour ago 300 ryots came here, entered the tahsildar's cutcherry, and avowed their determination not to give a single pice, and that they would be contented with nothing but a total remission. The tahsildar told them that the jummabundy was light and their crops good. They said they complained of neither of these, but of the Government generally; that they were oppressed by the court, stamp regulation, salt and tobacco monopolies, and that they must be taken off.[17]

Referring to the instructions which he gave to the tahsildar, the assistant collector added:

> I have also told him, to issue instructions to all persons, to prevent by all means in their power the assemblies which are taking place daily, and if possible to intercept the inflammatory letters which are at present being despatched to the different talooks.[18]

He further stated:

> The ryots say that they cannot all be 'punished', and the conspirators have as it were excommunicated one Mogany, who commenced paying their Kists. The ferment has got as far as Baroor and will soon reach Cundapoor. As the dissatisfaction seems to be against the Government generally and not against the heaviness of the jummabundy, speedy measures should, I think be taken to quench the flame at

> once. But in this district not a cooley can be procured. The tahsildar arrived here yesterday with the greatest difficulty.[19]

These protests were at times tinged by violence at some point. Most often, however, what is termed as violence was the resort to *traga*, *koor*, etc., (which are familiar under other names) inflicted by individuals upon themselves as a means of protest. On the occasions when the people actually resorted to violence, it was mostly a reaction to governmental terror, as in the cases of the various 'Bunds' in Maharashtra during the 1820-40s.[20] (At what point the people reacted to terror and repression by resorting to violence is a subject for separate study.) (The violence manifest in modern movements of civil disobedience and the counter violence adopted by the authorities to deal with it require deeper investigation. According to Charles Tilly in *Collective Violence in European Perspective*: 'A large proportion of the...disturbances we have been surveying turned violent at exactly the moment when the authorities intervened to stop an illegal but non-violent action...the great bulk of the killing and wounding...was done by troops or police rather than by insurgents or demonstrators.' Commenting on this, Michael Walzer believes that 'the case is the same...in the United States.' (*Obligations: Essays on Disobedience, War, and Citizenship*, 1970. p. 32).)

Overall, the civil disobedience campaigns against the new British rulers, including the one documented in this volume, did not succeed. The reasons for this must be manifold. Partly, the effectiveness of such protests was dependent upon there being a commonality of values between the rulers and the ruled. With the replacement of the indigenous rulers by the British (whether *de jure* or *de facto* is hardly material) such commonality of values disappeared. The British rulers of the eighteenth and nineteenth century did not at all share the same moral and psychological world as their subjects. Over time, what James Mill termed the 'general practice' of 'insurrection against oppression'[21] which had prevailed up to the period of British rule, was gradually replaced by 'unconditional submission to public authority.' In the early 1900s, it seemed to Gopal Krishna Gokhale 'as though the people existed simply to obey.'[22]

II

Before we proceed further, it may be useful to make a brief reference to the way in which the governance of India was organised in the late eighteenth and the early nineteenth centuries.

Contrary to popular opinion, from 1784 onwards (if not from an earlier date), the East India Company hardly played a major role in decisions made in England about India. The job of decision making and, in many instances, even the first drafting of the more crucial detailed instructions from 1784 onwards became a responsibility of the Board of Commissioners for the Affairs of India, set up by an Act of the British legislature and composed of members of government, and was painstakingly executed by this Board till 1858. The change which 1858 brought was the elimination of the essentially clerical role of the Company and the entrusting of this task also to an expanded establishment in the office of the Board and styling the whole thenceforward as the department of the Secretary of State for India.

The supreme head of British administration in the Bengal Presidency was the Governor-General-in-Council, who functioned through the several departments of Government, initially constituted in 1785 on instructions from the Board of Commissioners for the affairs of India. The Secret, the Political, the Military, the Public, the Revenue, and the Judicial were the major departments, all operating from Fort William (i.e. Calcutta). The Governor-General-in-Council (in the absence of the Governor-General, the Commander-in-Chief acting as president) met on specific days in the week to transact business in the particular department and the decisions and orders made were conveyed to the concerned subordinate bodies or individuals by the secretary of the concerned department who attended the council and maintained its records. Besides these departments, the instructions of 1785 had also established several Boards, subordinate to the Governor-General-in-Council, usually each of these presided over by a member of the Council, to direct and superintend some of the more extensive activities of Government. The Military Board and the Board of Revenue were the two most important amongst these subordinate Boards. (Corresponding arrangements had also been instituted in 1785 in the Madras and Bombay Presidencies.)

At this period, the job of the district 'collector' (in Bengal, Behar, Benares, etc.,) was mainly concerned with matters relating to revenue assessment and collection while the superintendence of the police and the performance of law and order functions were exercised by a separate official termed the 'magistrate' of the particular district. Ordinarily, the collector corresponded with and received his instructions from the Board of Revenue. The magistrate on the other hand corresponded with and received his instructions directly from the Governor-General-in-Council in the Judicial Department. Both the collector and the magistrate were independent and supreme in their respective spheres within their jurisdictions. It appears, however, from the nature of their respective links with the supreme presidency authority that the magistrate at this period had a slight edge over the authority of the collector. Benares, and perhaps many other districts also, further had two other independent, and superior, authorities: the court of appeal and circuit, and the military establishments. Some aspects of their mutual relationships and also differences in approach clearly come through in the documents included in this volume.

The documents in this volume, consisting of the correspondence between the various governmental authorities (These documents however do not include any correspondence on the subject of this narrative, if any such exists, between the court of appeal and circuit or the military authorities in Benares, etc., on the one hand and the Government or the Military Board at the presidency on the other.), describe a now mostly forgotten civil disobedience campaign carried out by the people of Benares, Patna, Sarun, Moorshedabad, and Bhagalpur against the British authorities during 1810-11. This is the best documented pre-Gandhian non-cooperation and civil disobedience campaign thus far uncovered. For this reason, it is being treated at some length in the pages that follow.

In 1810, on the instructions of the directing authorities in England, the Government of Bengal (Fort William) decided to levy a new series of taxes in the provinces of Bengal, Behar, Orissa, Benares and the Ceded and Conquered territories (these latter now constitute part of Uttar Pradesh). One of these, recommended by its Committee of Finance, was a tax on houses and shops. This tax was enacted on October 6, 1810 by Regulation XV, 1810. According to its preamble, the Regulation was enacted 'with a view to the improvement of the public resources' and to extend 'to the several cities and principal towns in the provinces of Bengal, Behar, Orissa and Benares, the tax which for a considerable period, has been levied on houses, situated within the town of Calcutta.' The Regulation provided for a levy of 'five per cent on the annual rent' on all dwelling houses (except the exempted categories) built of whatever material, and a levy of '10 per cent on the annual rent' on all shops. Where the houses or shops were not rented but occupied by the proprietors themselves, the tax to be levied was to be determined 'from a consideration of the rent actually paid for other houses (and shops) of the same size and description in the neighbourhood.'

The exempted categories included 'houses, bungalows, or other buildings' occupied by military personnel; houses and buildings admitted to be 'religious edifices'; and any houses or shops which were altogether unoccupied. The tax was to be collected every three months and it was laid down that when it remained unpaid 'the personal effects of the occupant shall in the first instance be alone liable to be sold for the recovery of the arrear of tax.' Further, if some arrear still remained 'the residue shall be recovered by the distress and sale of the goods, and chattels of the proprietor.' Though appeals were admissible against unjust levy, etc., 'to discourage litigious appeals, the judges' were 'authorised to impose a fine', the amount depending on the circumstances, etc., of the applicant, on all those whose appeals 'may prove on investigation to be evidently groundless and litigious'.

The collector of the district was 'allowed a commission of five per cent' on the net receipts. Incidentally, such a commission accorded to the collectors was not unusual at this time. The collectors received similar commissions on net collections of land revenue.

The total additional revenue estimated to arise from this tax was rupees three lakhs in a full year. Comparatively speaking, this was not very large. Of the total expected receipts from the various new or additional levies enacted around this time, the house tax was to contribute around ten per cent. In relation to the total tax revenue of the Bengal Presidency for 1810-11 (Rs.10.68 crores), most of it derived from the rural areas, the house tax amount was insignificant. But taken along with the other levies imposed about this time, large portions of which fell on the urban areas, this tax became a rallying point for widespread protest.

EVENTS AT BENARES

The protest begins at Benares. As Benares was then the largest city in northern India and possibly the best preserved in terms of traditional organisation and functioning, this was most natural. Also it may have been due to the Benares governmental authorities being more prompt in taking steps towards enforcing the house tax.

The following were the main arguments against the levy of the tax, as they emerge from the documented correspondence, and from the petition of the inhabitants of Benares (rejected by the court of appeal and circuit, partly because its ‘style and contents’ were ‘disrespectful’)[23]:

> (i) Former sooltauns never extended the rights of Government (commonly called malgoozaree) to the habitations of their subjects acquired by them by descent or transfer. It is on this account that in selling estates the habitations of the proprietors are excepted from the sales. Therefore the operation of this tax infringes upon the rights of the whole community, which is contrary to the first principles of justice.
>
> (ii) It is clear that the house tax was enacted only for the purpose of defraying the expenses of the police. In the provinces of Bengal and Behar, the police expenses are defrayed out of the stamp and other duties, and in Benares the police expenses are defrayed from the land revenue (malgoozaree). Then on what grounds is this tax instituted?
>
> (iii) If the Shastra be consulted it will be found that Benares to within five coss round is a place of worship and by Regulation XV 1810 places of worship are exempted from the tax.
>
> (iv) There are supposed to be in Benares about 50,000 houses, near three parts of which are composed of places of worship of Hindoos and Mussulman and other sects and houses given in charity by Mussulman and Hindoos. The tax on the rest of the houses will little more than cover the expenses of the Phatuckbundee. Then the institution of a tax which is calculated to vex and distress a number of people is not proper or consistent with the benevolence of Government.
>
> (v) There are many householders who are not able to repair or rebuild their houses when they fall to ruin and many

> who with difficulty subsist on the rent derived therefrom, how is it possible for such people to pay the tax?
>
> (vi) Instead of the welfare and happiness of your poor petitioners having been promoted, we have sustained repeated injuries, in being debarred from all advantages and means of profit and in being subject to excessive imposts which have progressively increased.
>
> (vii) It is difficult to find means of subsistence and the stamp duties, court fees, transit and town duties which have increased tenfold, afflict and affect everyone rich and poor and this tax like salt scattered on a wound, is a cause of pain and depression to everyone both Hindoo and Mussulman; let it be taken into consideration that as a consequence of these imposts the price of provisions has within these ten years increased sixteenfold. In such case how is it possible for us who have no means of earning a livelihood to subsist?

The authorities of Benares appear to have been the first in implementing the house tax regulation. Possibly, this promptness resulted from their being better organised with regard to civil establishment as well as military support. Whatever the reasons for their speedy compliance within a mere seven weeks after the passing of the regulation the collector of Benares, as the authority responsible for levying and collecting the house tax, started to take detailed steps towards the regulation's enforcement. On November 26, he informed the acting magistrate of the steps he was taking to determine the assessment on each house and requested him to place copies of the regulation in the several *thanas* for general information. He further requested the magistrate for police support for his assessors when they began their work in the *mohallas*. On December 6, the collector gave further details to the magistrate and requested speedy assistance from the *thannadars* etc. The acting magistrate replying to the collector on December 11, informed him of the instructions he had issued but stated that for the time being he did not feel that the police should accompany the assessors. He, however, assured the collector that 'should any obstacle or impediment on the part of the house-holders be opposed to your officers in the legal execution of their duties, I shall, of course, upon intimation from you, issue specific instructions to the officers of police to enforce acquiescence.' (pp.59-60) (Page numbers here, and on the following pages, refer to the page numbers od documents reproduced later in this volume.)

The assessment having started, and meeting with instant opposition, the acting magistrate thus wrote to the Government at Calcutta on December 25:

> I should not be justified in withholding from the knowledge of the Right Hon'ble the Governor-General-in-Council, that a very serious situation has been excited among all ranks and descriptions of the inhabitants of the city by the promulgation of Regulation XV, 1810. (p.60)

After giving the background he added:

> The people are extremely clamorous; they have shut up their shops, abandoned their usual occupations, and assembled in multitudes with a view to extorting from me an immediate compliance with their demands, and to prevail with me to direct the collector to withdraw the assessors until I receive the orders of Government. With this demand I have not thought proper to comply. I have signified to the people that their petitions shall be transmitted to the Government but that until the orders of Government arrive, the Regulation must continue in force, and that I shall oppose every combination to resist it. By conceding to the general clamour I should only have encouraged expectation which must be eventually disappointed, and have multiplied the difficulties which the introduction of the tax has already to contend with. (p.61)

Three days later, on the 28th, he sent another report:

> The tumultuous mobs which were collected in various places between the city and Secrole, on the evening of the 20th instant, and which dispersed on the first appearance of preparations among the troops, did not reassemble on the morning of the 26th and I was induced to hope that the people in general were disposed to return to order and obedience.
>
> But in the afternoon the agitation was revived: an oath was administered throughout the city both among the Hindoos and the Mahommedans, enjoining all classes to neglect their respective occupations until I should consent to direct the collector to remove the assessors and give a positive assurance that the tax should be abolished. It was expected that the outcry and distress occasioned by this general conspiracy would extort from me the concession they required. The Lohars, the Mistrees, the Hujams, the Durzees, the Kahars, Bearers, every class of workmen engaged unanimously

> in this conspiracy and it was carried to such an extent, that during the 26th the dead bodies were actually cast neglected into the Ganges, because the proper people could not be prevailed upon to administer the customary rites. These several classes of people, attended by multitude of others of all ranks and descriptions, have collected together at a place in the vicinity of the city, from whence they declare nothing but force shall remove them unless I consent to yield the point for which they are contending. (p.62)

On December 31, the acting magistrate further reported:

> Several thousands of people continue day and night collected at a particular spot in the vicinity of the city, where, divided according to their respective classes, they inflict penalties upon those who hesitate to join in the combination. Such appears to be the general repugnance to the operation of the Regulation, that the slightest disposition evinced by any individual to withdraw from the conspiracy, is marked not only by general opprobrium but even ejectment from his caste. (p.64)

The 'conspiracy' continued despite all efforts of the authorities. In the meantime the acting magistrate had written to the collector, as well as to the senior judge of the court of appeal and circuit who was said to have had much influence on the Rajah of Benares and other 'principal natives', to return immediately from their tours. The collector returned on January 1, 1811 and the following day he too reported to the Government at Calcutta. The acting magistrate submitted:

> The combination formed against the introduction of the house tax becomes daily more extended, and has assumed a very serious appearance. The people continue to desert the city, and collect in increasing numbers at the spot, where they have resolved to remain in expectation of the orders of Government: no assurance on my part or on the part of the civil authorities at this station, has the slightest effect.
>
> There is too much reason to apprehend that this combination extends throughout the province. The Lohars, who originally assembled for another purpose, soon took a principal part in the conspiracy and have collected here in great numbers from all parts of the province. The inconvenience suffered in consequence by ryots, threatens serious impediment

> to cultivation, and multiplies the number of the discontented. At the same time, the people are integrated to persevere by the notion which prevails, that the inhabitants of other cities have engaged to conform to the issue of the struggle at Benares. (p.66)

On the same day, the collector further elaborated on the foregoing. He wrote:

> I am given to understand that considerably above 20,000 persons are sitting (it may be called Dhurna) declaring that they will not separate till the tax shall be abolished. Their numbers are daily increasing from the moffusil whence each caste has summoned its brethren and adjured them to unite in the cause. If one party be more obstinate and more determined upon extending the mischief than another, the Lohars, or blacksmiths, may be so charged, for they were not only the first to convoke the assembly of their near brethren but they have far and wide called upon other Lohars to join them with the intent that no implement of cultivation or of harvest (which is fast approaching) be either made or mended, and thus that the zamindars and ryots may be induced to take part with the malcontents, in short, that the whole of the country shall directly or indirectly be urged to insist on the repeal of the tax.
>
> With these Lohars, almost all other castes, sects and persuasions are in league and I am informed, under a most binding oath amongst each other.
>
> At present open violence does not seem their aim, they seem rather to vaunt their security in being unarmed in that a military force would not use deadly weapons against such inoffensive foes. And in this confidence they collect and increase knowing that the civil power cannot disperse them, and thinking that the military will not. (p.71)

Referring to the links which the protest had with other towns he stated:

> I have learnt from good authority that the inhabitants of Patna have written to Benares to the effect that they shall be guided by these. That being more numerous, the Benares city is better able to make exertions against the tax and if it shall succeed in procuring abrogation the city of Azimabad would become exempted of course: in like manner if the Benares city submits that Patna will immediately follow its example. (p.73)

By January 4, the situation seems to have quietened down and the acting magistrate had begun to be pleased with the result of the steps he had taken of exerting his pressure on the landholders to recall the Lohars and by the assistance he had received from a few of the 'principal inhabitants'. Yet he felt:

> Much dependence however cannot at present be placed upon these favourable circumstances, for the religious orders of the people, and the men of rank and respectability, continue unalterable in their resolution, and encourage the multitude to persevere by every kind of artifice and persuasion. The principal people of every class are compelled to eject all those who are detected in attempting to withdraw from the combination. They also send forth spies in all parts of the city to seize the delinquent and I have apprehended many employed upon the service. I have of course inflicted upon such persons very severe punishment, but it does not deter others from committing similar outrages. (p.68)

By January 8, the situation appeared really to have changed to such an extent that it made the acting magistrate report 'with the greatest satisfaction' that the 'inhabitants of this city begin to be sensible of the inutility and danger of continuing in a state of insubordination to the authority of Government.' Explaining the circumstances of the 'alarming situation' which he thought he had overcome, he stated:

> The people of all description, collected according to their several classes in the vicinity of the city, had bound themselves by oath never to disperse without extorting the object they were extending for, and they seemed to increase daily in numbers and resolution. They employed emissaries to convey a Dhurm Puttree to every village in the province, summoning one individual of each family to repair to the assembly at Benares. Several thousand Lohars, Koonbees, and Korees, were enticed from their houses, and collected here by the excitement. At the same time, the inhabitants continued to withdraw from the city, and even those who were unwilling were compelled to abandon their pursuits, to avoid the opprobrium and punishment denounced against all and inflicted upon many, who declined joining in the conspiracy. The individuals of every class, contributed each in proportion to his means, to enable them to persevere, and considerable sums of money were

> thus raised for the support of those, whose families depended for subsistence on their daily labour. (p.69)

He further explained:

> The multitudes thus assembled were abundantly supplied with firewood, oil, and provisions, while nothing in the city except grain was procurable. The religious orders exerted all their power over the prejudices of the people to keep them unanimous, and the combination was so general, that the police were scarcely able to protect the few who had courage to secede, from being plundered and insulted. (p.69)

Referring to the role of the mullahs (boatmen) he added:

> Much public inconvenience was likely to arise from the mullahs being drawn into the conspiracy, the communication with the opposite bank of the river was almost interrupted and I was compelled to proclaim that every boat abandoned by the proprietor should be forfeited to Government. The mullahs in consequence soon returned to their duties. At the same time several persons of different classes employed to extend the combination were detected by the police, and punished with exemplary severity. These examples, often repeated, began at length to deter others from incurring the consequence of similar offences. (p.70)

He ended with a reference to the additional factors of 'fatigue and privations which began to be felt seriously by all' and of the effect of his advice that 'it is only by dispersing that the people can expect indulgence from the Government.' He concluded his report by stating that he had 'little doubt that in the course of a few days this combination, now no longer formidable, will be totally dissolved.' (p.70)

By now the reports of the earlier situation had reached the Government at Calcutta. The event was first noticed by the Governor-General-in-Council on January 5, when after acknowledging the receipts of the reports up to December 31 as well as the petitions which had been received from Benares, the Government observed that it did not 'discern any substantial reasons for the abolition of the tax' and thought 'it would be extremely unwise to sacrifice to riot and clamour a tax, the abolition of which is not dictated by any considerations of general policy.' After approving the measures taken by the acting magistrate, the letter from Government added:

> You will of course take the same opportunity of impressing on their minds the serious evils, which they are liable to

> bring upon themselves by further perseverance in resistance to the authority of Government. It may at the same time be expedient to apprise them that with every disposition to afford to the people every reasonable indulgence and to protect them in the enjoyment of every right, the Governor-General-in-Council never can yield to lawless combinations or to attempts made to enforce a compliance with their applications by tumultuary meetings and proceedings. (p.74)

The 'reasonable indulgence' to be afforded was that the people 'should be relieved' from the Phatuckbundee which they contributed, collected and defrayed for the repair of gateways and the payment of chokeydars on their own volition and according to their own arrangements, and that its expenses in future 'should be defrayed from the general resources of Government.' News of this indulgence was to be conveyed to them after consultation and appropriate arrangements with the military authorities, simultaneously to the conveying of the sentiments expressed in the foregoing passage.

On the receipt of the report of January 2, which pointed out the seriousness of the situation, the Government sent further instructions on the 7th about the manner of the use of the military force. Feeling 'that a proclamation issued by the direct authority of the Government itself may be of service in reclaiming the people' or in 'appraising them of the evils which they may bring upon themselves by a further perseverance in those lawless measures', it enclosed a proclamation leaving the discretion about the time of its use to the Benares authorities. After declaring that the Government did not 'discern any substantial reasons for repealing the provisions of that Regulation', the proclamation added that orders 'have been issued to the officer commanding the troops to support the magistrate and collector in the discharge of that duty', and concluded:

> It is with deep concern that the Governor-General-in-Council feels himself obliged to warn the refractory part of the community of the serious evils, which under the foregoing orders, they are liable to bring upon themselves by a further perseverance in their present seditious conduct. The disposition of the Government to attend to all reasonable applications and to afford equal protection to all classes of people is universally acknowledged but it never can be induced to forego what it has deemed a just and reasonable exercise of its authority in consequence of unlawful combination and tumult. (pp.76-7)

Between January 7, the date of the proclamation, and January 11 (as reported in their Revenue letter of February 12, 1811 to the directing authorities in England), it appeared to the Governor-General-in-Council 'on mature consideration that the tax was susceptible of some modifications as calculated to obviate any just grounds of complaint on the part of those classes of the people, who from their situation in life, were most liable to be affected by its operation.' Consequently, on receipt of the somewhat encouraging report of January, 4 from the magistrate, the Government through their two letters of the 11th drew the attention of the Benares authorities to the section pertaining to religious edifices and further decided to exempt the 'dwellings of the lowest orders of the people' whose 'produce from the very inconsiderable value of the buildings could not be an object to Government.' With regard to the conveying of the news of these indulgences to the people it added:

> Previously to communicating the present orders to the different classes of the people, who may be benefitted by their operation you will naturally consider in what mode it can be done, without compromising the public authority or weakening the sentiments of respect which it is so essential that the community should feel, especially at the present juncture, for the Government. (p.79)

The instructions in conclusion added:

> His Lordship-in-Council would hope that the people may have shown themselves deserving of the indulgence proposed to be extended to them by the relinquishment of their late seditious and criminal designs and by a just submission to public authority. (p.79)

Government orders of January 5, wholly rejecting the petitions, were communicated to the people of Benares on the 13th. From the 14th 'people began again to collect together.' By now the Government proclamation of the 7th had reached Benares and 'thinking that it would be of service in reclaiming the people from their unjustifiable proceedings', the acting magistrate, as he reported to Government on the 18th, 'proposed to publish it.' The officer commanding the troops however 'did not consider himself in a state to afford' the support required till he had received reinforcements from Lucknow. By now the orders of Government of the 11th (excusing religious edifices, etc., from the payment of the tax) had also reached the Benares authorities, but the acting magistrate felt: 'As long as the people persevere in these unjustifiable proceedings, they are totally undeserving of indulgence, and it is impossible to communicate to them the benevolent intentions of the Government.' (p.81)

Two days later, on the 20th, the magistrate reported 'little alteration' in the situation and saw 'little reason to hope for any very favourable change.' He was anxious for the additional force to arrive, so that he 'may carry into effect the orders of Government' particularly as he felt, 'it becomes everyday an object of greater importance to disperse the people, and compel them to put an end to their seditious and unwarrantable proceedings.' He further added:

> I cannot but feel very forcibly, that such a state of things being permitted to continue in defiance of public authority, has already weakened, and weakens daily still more and more, those sentiments of respect, which it is so essential that the community should entertain for the government of the country. (pp.85-6)

In the same letter he reported:

> Soon after the resolution of Government not to rescind Regulation XV, 1810 was promulgated, inflammatory papers of the most objectionable tendency appeared placarded about the streets. I have the honour to enclose copies of two of these papers to be laid before the Government. I have offered a reward of 500 Rs. for every man on whom such a paper may be found, and hope that this will not be thought more considerable than the nature and exigency of the case required. (p.85)

The massive measures taken by the authorities had, however, begun to erode the unity and confidence of the people and the despondency of the magistrate was rather misplaced. Within a few days of the foregoing report, the impact of the various efforts of the Benares authorities became apparent. As the magistrate reported later, the people had proposed 'to proceed in a body to Calcutta, through all the cities subject in common with themselves' to the house tax, and that, 'they determined that the proprietor of every house in the city should either go himself, or send a person to represent him, or contribute, in proportion to his means, to defray the expenses of those who might be disposed to go.' But he explained:

> When it came to the point, few were found disposed to undertake a journey on which they were likely to be obstructed, nor were they willing to contribute to promote a

> scheme, the object of which, they were fully convinced, would never be accomplished. (pp.86-7)

Meanwhile, another petition, presented this time to the court of appeal and circuit, brought the verdict:

> This petition has been presented on the part of the people who are determinately engaged in mobs and assemblies contrary to the regulations, which is highly improper, also the style and contents of this petition are disrespectful which is an additional reason for not allowing of it. (p.90)

All these developments, according to the magistrate, led to dissension, withdrawal of support and consequently to a general breakdown of the people's morale. In such a situation the services of some 'old and faithful public servants' created further embarrassments for the people and ultimately made them seek, through the medium of the Rajah of Benares, 'the indulgence of the Government.' Yet though the people had been humbled, the situation was far from normal. The acting magistrate in his report of January 28, therefore, suggested 'a general pardon', particularly 'as the hearts of every man in this city are united with them' and as 'enough perhaps had been already done for the support of the public authority.'

Taking note of the report of the acting magistrate, the Government on February 4, expressed its 'great satisfaction' at the submission of the people, gave highest approbation to the conduct of the acting magistrate; decided to bestow *khelauts* on persons who had supported the Government cause; and agreed to the suggestion of the magistrate that the Phatuckbundee should remain undisturbed and in place of the earlier order of Government, remission of an amount equal to its collection may be allowed from the assessment of the tax on houses and shops to those who contributed to the Phatuckbundee. Disagreeing with the general pardon suggested by the magistrate, the Government stated:

> The Governor-General-in-Council does not discern any substantial grounds for granting a general pardon to the people of Benares for their late unwarrantable and seditious proceedings. On the contrary, His Lordship-in-Council is of opinion, that public justice and obvious expediency of preventing by seasonal examples the recurrence of such evils in future, require that the persons, who have been chiefly instrumental in exciting the late disturbances, should be regularly brought to trial for that offence. (p.91)

At the same time, it instructed the acting magistrate that ‘the prosecutions need not be numerous.’

Meanwhile, the humbling process, initiated through the Rajah of Benares and the other ‘loyal’ and ‘faithful public servants’ went further. On February 7, the acting magistrate forwarded to the Government a petition, presented to him by the Rajah of Benares in the name of its inhabitants. This he described as an ‘ultimate appeal’ by means of which the petitioners, in the words of the petition, ‘present themselves at last before His Lordship-in-Council’ and ‘humbly’ represented that disobedience ‘was never within our imagination.’ Instead, they added, ‘in implicit obedience’ to the proclamation of the magistrate of January 13 ‘as to the decree of fate, we got up, and returned to our homes, in full dependence upon the indulgence of the Government.’

The Government however still did not ‘think proper to comply with the application of the inhabitants’ to a ‘greater extent than will be done’ by the operation of its orders of January 11. This order of Government, along with the information of the earlier modifications, was conveyed a week later, on February 23, to the Rajah and principal inhabitants of Benares by the magistrate, who in his proclamation to the inhabitants of Benares, of the same date, concluded with the view, ‘that no ground now remains for the complaint or discontent.’

The people in general, notwithstanding their having submitted to the orders of Government ‘as to the decree of fate’ as stated in their petition submitted through the Rajah of Benares, did not share the magistrate’s view and exhortation. Nearly a year later, on December 28, 1811, the collector reported:

> At an early period I directed my native officers to tender to all the householders or tenants whose houses had already been assessed, a note purporting the computed rate of rent of each house, and the rate of tax fixed; and I issued at the same time a proclamation directing all persons who had objections of any nature to offer to the rates of rent or tax mentioned in such note to attend and make known the same that every necessary enquiry might be made and all consistent redress afforded. In the above mentioned proclamation, I fixed a day in the week for specially hearing such cases and repaired to the city for that purpose. Neither would any householders or tenants receive such note nor did any one attend to present petition or offer objection.

> The most in sullen silence permitted the assessors to proceed as they pleased rigidly observing the rule to give no information or to answer any questions respecting the tax; in determination that they would not in anywise be consenting to the measure, that the assessors might assess and the executive officers of the tax might realise by distraint of personal or real property; they could not resist but they would not concur. (pp.99-100)

But, as a consolation for the authorities the collector added:

> A few exceptions were found in some of the principal inhabitants of the city either in the immediate employ of Government or in some degree connected with the concerns of Government or otherwise individually interested in manifesting their obedience and loyalty. These persons waited on me and delivered in a statement of their houses and premises and the actual or computed rent of the same and acknowledged the assessment of tax.' (p.100).

Yet such exceptions did not seem to console much and in concluding his report, the collector 'strenuously' urged 'as an indispensable measure of precaution, that no collection be attempted without the presence of a much larger military force than is now at the station. (p.101)

Such withholding of concurrence and cooperation was apparent even earlier in February. While forwarding the 'ultimate appeal' of the inhabitants, the acting magistrate had stated:

> I believe the objection which they entertain against the measure in question, is pointed exclusively at the nature and principle of the tax, and not in the least at the rate of assessment by which it will be realised. The inhabitants of this city appear to consider it as an innovation, which, according to the laws and usages of the country, they imagine no government has the right to introduce; and that unless they protest against it, the tax will speedily be increased, and the principle of it extended so as to affect everything which they will call their own. Under the circumstances, I fear, they will not easily reconcile themselves to the measure. (p.93)

EVENTS AT PATNA

Now to turn to the other towns. As stated by the Benares collector in his letter of January 2, the inhabitants of these other towns seemed to have been watching the events at Benares. On January 2, the magistrate of Patna forwarded 12 petitions regarding the house tax from the city's inhabitants, the Government informing him on the 8th of their rejection, but cautioning the magistrate to use 'gentle and conciliatory means' in stopping the inhabitants from convening meetings or petitioning 'while the discussion is depending at Benares.' It however instructed him to use the various means he possessed under his general powers and instructed him to report without delay to Government any 'tumultuary meetings' or 'illegal cabals.'

EVENTS AT SARUN

A week later (January 9) it was the turn of the Sarun magistrate to write to Government; he not only forwarded a petition from the inhabitants but stated:

> When the collector deputed assessors to arrange the assessment a still greater degree of alarm was created; and notwithstanding all I could do all the shops of every description were actually shut up, and there was every indication of some very serious disturbances taking place. (p.103)

Explaining his reasons for suspending the making of the assessment, he added:

> As there is no military force at this place, and I was apprehensive of acts derogatory to the authority of Government being committed, I was induced to request the collector to suspend the arrangement of the assessment till I could receive instructions from Government. (p.103)

The instructions from Government 'that no encouragement may be given to the inhabitants of Sarun to expect any general relinquishment of the tax' except what had been determined as modifications on January 11, were sent on January 18. The Government further observed:

> The Governor-General-in-Council is unwilling to believe that the inhabitants of Sarun will attempt to offer any open resistance to the establishment of the tax. (p.104)

Notwithstanding such belief it directed:

> Should circumstances however render it actually necessary, you will of course apply to the officer commanding the troops at Dinapore for such military force as may be requisite to support the public officers in giving effect to the regulations and orders of Government. (p.104)

EVENTS AT MOORSHEDABAD

Similar sentiments and exhortations and instructions were repeated on March 2 in the case of Moorshedabad, but the situation here was more serious. On February 25, while enclosing two petitions from the inhabitants the magistrate reported:

> Rumours of a combination among the principal merchants to avoid, rather than oppose the tax, by withdrawing from their houses, reached me some days ago. The plan was carried into execution by some of the leading men, and by more of inferior note, but I am happy to add, that I have prevailed on them to return to their houses. (p.105)

Finding 'that the disposition to leave the city was gaining ground,' he wrote, 'I have deemed it my duty, objectionable as the language is, to forward' the petition, and 'in return for this concession those Mahajans who had taken up their residence in the fields, promised to return to their homes.' The objectionably worded petition stated:

> By the blessing of God, the English Gentlemen know, that no king of the earth had oppressed his subjects, and the Almighty preserves his creatures from harm...For some years it has been our unhappy fate to suffer both from affliction and oppressions. First from the prevalence of sickness for several successive years, the city has been depopulated, so much so, that not one half of the inhabitants remain...The oppression of the Town Duties and Customs is so great, that property of the value of 100 Rs. cannot be purchased for 200, the rate of duty is increased two-fold and even fourfold, and if any one wish to remove property from the city to its environs, he cannot do it without the payment of a fresh duty...Fourth, order has been passed for levying a tax on houses and shops, which is a new oppression...the order of the Government has in truth struck us like a destructive blast. (pp.106-7)

Concluding his report, the magistrate added: 'The discontent caused by the house tax is, I am convinced to add, very deep and very general, for it extends over all ranks and descriptions of people.' He therefore solicited the Government's instructions 'in the event' of 'its breaking out into a ferment.'

There seems to have been no actual breakout of the discontent as feared by the magistrate of Moorshedabad. But as revealed at the time of the events in Bhagalpur, neither was there any collection of the tax anywhere till seven months later. On October 19, the subject was reopened for another consideration through a letter to the Government from a retiring senior member of the Board of Revenue who simultaneously operated as secretary to the Judicial and Revenue Departments and was a party to all the foregoing orders and instructions being issued under his signature. Referring to the house tax, he wrote:

> From the experience hitherto obtained on the subject, it appears clear that the tax cannot be an object to Government except at the city and suburbs of Calcutta. At other places, (at least at the cities) I am led to believe, from all that I have heard on the subject, that a considerable degree of irritation still prevails on account of the tax, and that years must elapse before that irritation will altogether subside. (p.143)

Consequently, as this implied 'the sacrifice of 2 or 3 lacs of rupees' only, he suggested the discontinuation of the tax to 'conciliate the affection of the large bodies of people.' The suggestion was accepted by the Government on October 22, and it informed the Board of Revenue:

> The Vice-President-in-Council is satisfied at the expediency of abrogating the tax on houses established by Regulation XV, 1810 and with that view is pleased to direct, that in the first instance the process of assessment at the stations where it may not have been completed be stayed and that the collection of the tax where it may have been commenced be stopped, with exception however of any places at which commotions originating in a resistance to the operation of the tax, may exist at the period of the receipt of the present orders. (p.144)

It further called for reports from the district collectors on the situation in their districts to be submitted to the Government, 'who on the receipt of them will pass orders for the final abrogation of the tax, unless the existence of any open oppositions should render it necessary either wholly or partially to enforce the collection of it.'

EVENTS AT BHAGALPUR

Great opposition to the tax was however manifested in Bhagalpur at this time. On October 2, the collector of Bhagalpur reported:

> The day before yesterday, being Monday, the 30th September, the collection was to have commenced but on the appearance of the *tahsildar*, they one and all shut up shops and houses. Yesterday, the officers of Government were unable to make any progress in their business, and in the evening while I was driving out in my carriage, several thousands of the inhabitants were standing on either side of the road. They neither committed nor offered any violence, but poured forth complaints of the hardness of their situation, and clamorously declared their inability to pay the tax. (p.109)

This was further corroborated by the magistrate, in his letter to Government on the following day. After detailing the facts of the shutting of the shops, the magistrate stated:

> I consequently yesterday morning summoned the principal people before me and explained to them the impropriety of their conduct and how useless it was for them to resist the orders of Government. They however declared in a body that they would give up their houses, and leave the town, but never would consent voluntarily to pay the tax, the nature of which had not even been explained to them. (p.112)

The magistrate, however, added that notwithstanding their opposition, 'they were ready to pay it whenever the collections should commence at Moorshedabad', or any adjacent zillah and he, therefore, deemed it advisable to ask the collector to suspend the collection for a few days. The collector resenting the interference of the magistrate, and thinking that the magistrate's setting himself, 'against its operation in its very first stage, because a lawless rabble assembles, is striking at the root of that power, which the Government ought to possess over the subject', sought the guidance of the Government. The Government in its deliberations on the subject of October 11, concurred with the collector and expressing its 'disapproval' of the conduct of the magistrate felt that the steps he had taken in suspending the collection of the tax was 'naturally calculated to excite a combination among the inhabitants of Bhaugulpore, and the inhabitants of Moorshedabad, Patna and other places.' It ordered the magistrate to 'withdraw the order forthwith' in 'the most public manner possible' and 'to afford every aid and support to the collector' in 'regard to the collection of the house tax.' (pp.113-4)

The order reached Bhagalpur around October 20. At 10 p.m. on the 21st, the collector informed the Government:

> I am sorry to acquaint you that in carrying into execution the collection of the house tax I was this evening most grossly assaulted in my carriage. Bricks, stone and every description of offensive missile was hurled at my head.
>
> I am most severely cut in my face, and in my head: and had I not affected my escape into Mr. Glass's house, nothing on earth could have saved my life. (p.114)

The account of this particular incident as reported by the magistrate and by his assistant, the later acting magistrate, was wholly different. In his letter of November 15, the magistrate stated that he had 'every reason to believe (and this is also the opinion of the other gentlemen in the town), that had he [i.e. the collector] not irritated the mob, by flogging them, the assault never could have taken place', and further that the collector 'deviates from the truth' when he stated to the Government that 'he was assaulted in carrying into execution the collection of the house tax.' Such statements at this stage, however, appeared to the Government 'as taking advantage of a mere inaccuracy of expression employed in the preparation of a hurried and urgent despatch.'

Even the belated recognition of 'a mere inaccuracy of expression' did not exist on the day the Government at Calcutta received the express communication of the collector reporting the assault on himself 'in carrying into execution the collection of the house tax.' It immediately adopted a detailed resolution recalling its earlier order of October 11, and suspended the magistrate, as it felt 'that the native inhabitants of Bhagalpur would not have ventured to offer the insults and outrages, described in the foregoing letter, to the collector and in his person to the Government itself, had the magistrate' adopted 'necessary precautions for the maintenance of the public peace and for the due support of the collector' with 'regard to the collection of the house tax.' It further decided, as it informed the directing authorities in England on October 29, 1811, 'to depute an officer of greater firmness and activity to take charge' of the magistrate's office and desired the person so deputed to 'make it an object of his particular attention to enforce payment of the tax.' This direction, incidentally, as stated previously, had four days earlier been preceded with the Government's view of the expediency of abrogating the tax. Finally, it requested the military authorities to arrange the sending of additional military force to Bhagalpur 'with the view of supporting the collector and the officers of police in the discharge of their public duty', if felt necessary by them.

The resolution of the Government was of little consequence to the immediate events at Bhagalpur, as it did not reach the local authorities before the people's protests were put down. Yet the overcoming or crumbling of 'opposition or resistance' had caused considerable headache and anxiety to the local authorities. Some of it arose from the divergent views held by the collector and the magistrate about how to handle the situation: the collector stood for effective and 'vigorous effort in support of the authority of Government', while the magistrate, who had actual responsibility for police and military action, tended to follow a quieter and somewhat less violent course.

Regarding the meetings of the people on the 22nd, the magistrate reported on the 24th:

> [I] sent for some troops to meet me at Shahjunghy, whither I proceeded after waiting a short time to allow them to arrive. We there found about eight thousand persons assembled, but totally unarmed. The principal of them kept in the centre of the crowd so that it was impossible to apprehend them, and as I was informed on the spot were performing funeral ceremonies. They, however dispersed after having been repeatedly told that if they remained they would be fired at. They then requested permission to present a petition the next morning which I agreed to receive giving them fully to understand that the collection of the tax would not be suspended, nor the petition received unless presented to me in court in a regular and respectful manner. After the dispersions there remained a numerous rabble consisting partly of weavers and other artificers, the rest old women and children. I spoke to some of them who expressed an apprehension that if they began to disperse those who remained last would be fired upon. But on being assured that this would not be done they agreed to disperse, left the place at the same time we did, and returned respectively to their houses. (pp.122)

Further, the commanding officer of the Hill Rangers stated:

'When the principal people retired last evening, the remaining part of the mob, women and their children seemed to have no dread of the consequence of firing among them, but rather sought it.' He advised the magistrate to have 'all the desirable force' present when the people came to present the petition, or 'better not to receive them' but 'to desire that their *arzee* may be sent to you when you can act accordingly.' Next day, the magistrate reported to the Government that he 'had no account of the petition mentioned the evening before.' On the evening of the 23rd, distraint with the support of the military was resorted to and as the collector reported 24 hours later 'last night's transaction has indeed changed the face of things.' Meanwhile, the magistrate had also taken other measures and further requested the magistrates of adjacent districts to prevent 'people proceeding from your district to Bhaugulpore in bodies exceeding the number of ten and to intercept all arms which may be supposed to be intended for Bhaugulpore', and further 'to intercept all native communications of a suspicious tendency and forward the same' to him. Some confusion, however, arose soon after this pacification. Following the resolution of the Government of October 22, regarding its intention of suspending the collection of the house tax, the Board of Revenue had informed the Bhagalpur collector to discontinue the collection. Such instruction to Bhagalpur evoked strong censure from the Government, and the collection of the tax was resumed.

In January 1812, it was reported that the European residents of Bhagalpur declined to pay the house tax. As it was felt by Government that they were in no respect 'implicated in the circumstances which rendered the continuance of the house tax necessary at that station', the collector was instructed not to enforce payment of the house tax from the Europeans residing in that district. Still earlier, the European residents from the suburbs of Calcutta had also refused payment of the tax and the advocate-general opined that he was doubtful if it could be enforced on them through distraint of property. Consequently, its operation from the suburbs of Calcutta, where the Government had earlier intended to continue it even after its abrogation in other cities and towns, was also suspended. While communicating this order on January 21, 1812, the Government further informed the Board of Revenue that 'the Governor-General-in-Council has it in contemplation to pass a Regulation for abolishing Regulation XV, 1810.' The abolishing Regulation was passed on May 8, 1812, as Regulation VII, 1812.

The first intimation of the protests arising from the imposition of the house tax was conveyed to the directing authorities in London by the Bengal Government through its Revenue letter of February 12, 1811. Its receipt and consideration led to the preparation of Draft No.218 of 1811-12 on May 23, 1812. A passage in the original draft (which was expunged by the Board of Commissioners for the Affairs of India in the final stages, only for the reason that it became redundant due to the intended abrogation of the house tax), ran as follows:

> Having most attentively and seriously deliberated upon the subject, as you must be convinced from the present discussion, we should have felt inclined to direct the abolition of the house tax. But from an apprehension we entertain that this measure might be mistakenly considered as originating in a disposition on the part of your Government to yield to the influence of popular clamour...we are willing therefore to hope that under the modifications which you had it in contemplation to adopt...the same has, since the date of your letter been quietly collected. (pp.170-1)
>
> This passage further stated:
>
> But if notwithstanding these modifications...it has continued to be obnoxious...we think you ought to adopt the most speedy measures for its repeal, and which you think it will be possible for you to carry into execution, without compromising in too conspicuous a manner the authority of Government. (p.171)

But there was really little need for communicating such sentiments to Calcutta. The Government in Calcutta had a similar view and wholly shared the sentiment that any 'repeal' of the tax should only be carried 'into execution, without compromising in too conspicuous a manner the authority of Government.' Months before London prepared and considered the relevant dispatch, the Revenue letter from Bengal of December 14, 1811 had stated:

> Arguments indeed were not wanting for the continuance of the tax, founded on the necessity of supporting the authority of Government and repressing the spirit of resistance which had been manifested to the exercise of its legitimate powers. The inhabitants of Benares however had long ago yielded an unconditional submission to public authority; and exclusively of that consideration it will be observed, that we neither intended to proceed to the

> immediate abolition of the tax, nor to extend the benefits of that measure to any place at which (to use the terms of our instructions to the Board of Revenue) 'commotions originating in a resistance to the operation of the tax might exist at the period of the receipt of these orders'. (p.157)

III

This story of the 1810-11 protest in Benares and other towns, as it emerges in more vivid detail from the documents, seems not really very different from what has happened during the non-cooperation and civil disobedience movements of the 1920s and 1930s in different parts of India. It may, however, be worthwhile here to recapture the main elements of the 1810-11 happenings at Benares and other places.

The immediate cause of the protest was the levy of the house tax. Yet unhappiness and revulsion had been simmering for a considerable time previous to this levy. By 1810, these areas had been under British domination for about 50 years and the people in general (whether at Benares, Bhagalpur or Murshedabad) had begun to be apprehensive of the doings of Government. As stated by the people of Benares, the levy of the house tax felt 'like salt scattered on a wound.' The people of Murshedabad felt it like 'a new oppression' and stated that it had 'in truth struck us like a destructive blast.'

The main elements behind the organisation of civil disobedience at Benares were:

1. Closing of all shops and activity to the extent that even 'the dead bodies were actually cast neglected into the Ganges, because the proper people could not be prevailed upon to administer the customary rites.' (p.62)

2. Continuous assemblage of people in thousands (one estimate[24] puts the number at more than 200,000 for many days) sitting in *dhurna*, 'declaring that they will not separate till the tax shall be abolished.' (p.71)

3. The close links made by the various artisans and craftsmen with the protest through their craft guilds and associations.

4. The *Lohars*, at that time a strong and well-knit group, taking the lead, calling upon other *Lohars* in different areas to join them. (p.71)

5. A total close-down by the *Mullahs* (boatmen). (p.70)

6. The assembled peopled who 'bound themselves by oath never to disperse' till they had achieved their object. (p.69)

7. The dispatch of emissaries 'to convey a *Dhurm Puttree* to every village in the province, summoning one individual of each family to repair to the assembly at Benares.' (p.69)

8. 'Individuals of every class contributed each in proportion to his means to enable them to persevere', and 'for the support of those, whose families depended for subsistence on their daily labour.' (p.69)

9. 'The religious orders' exerting all their influence to keep the people 'unanimous.' (p.69)

10. 'The combination was so general, that', according to the magistrate 'the police were scarcely able to protect the few who had courage to secede, from being plundered and insulted.' (p.69)

11. The displaying of protesting posters about the streets of Benares. The magistrate called them 'inflammatory papers of the most objectionable tendency' and 'offered a reward of Rs.500 for every man on whom such a paper may be found.' (p.85)

Regarding the people's own view of the unarmed resistance they had put up, the collector reported: 'Open violence does not seem their aim, they seem rather to vaunt their security in being unarmed in that a military force would not use deadly weapons against such inoffensive foes. And in this confidence they collect and increase, knowing that the civil power cannot disperse them, and thinking that the military will not.' (p.71) The taking of such steps seems to have come to them naturally. Further, their protesting in this manner in itself did not imply any enmity between them and state power. It is in this context that the rejected petition quoted some prevalent saying: 'to whom can appeal for redress of what I have sustained from you, to whom but to you who have inflicted it.' The concept of ruler-ruled relationship which they seem to have held, and which till then had perhaps been widely accepted, was of continuing interaction between the two. Such a dialogue seems to have been resorted to whenever required, and its instrumentalities included all that the people of Benares employed in this particular protest.

It was, perhaps, only belatedly that the people of India began to comprehend the futility of such traditional protests in relation to authorities wholly subscribing to an alien value system and who thus had nothing in common with themselves. Such a realisation on the one hand, would have made them turn to violence; and on the other, reduced them more and more to passivity and inertness.

The happenings at Patna, Saran, Murshedabad (though seemingly of lesser intensity) and at Bhagalpur appear to be of the same nature and similarly conducted as at Benares. Even at Bhagalpur, where the collector, seemingly forgetting where he was, began to mete out summary justice in the manner of contemporary British justices of the peace, the people, though enraged, remained peaceful. They continued assembling in thousands, totally unarmed and even the 'women, and their children seemed to have no dread of the consequences of firing among them, but rather sought it.'

If the dates, (1810-12) were just advanced by some 110 to 120 years, the name of the tax altered and a few other verbal changes made, this narrative could be taken as a fair recital of most events in the still remembered civil disobedience campaigns of the 1920s and 1930s. The way the people organised themselves, the measures they adopted, the steps they took to sustain their unity and the underlying logic in their minds from which all else flowed are essentially similar in the two periods. (It is by no means implied here that there are no differences at all between the non-cooperation and civil disobedience in 1810-11 and what is termed as "Satyagraha". To an extent the concept of satyagraha, since this term was coined by Mahatma Gandhi has become more and more involved. For many, it cannot be resorted to be by any who have not been trained to an ashram life etc. But ordinarily satyagraha can only mean non-cooperation and civil disobedience of the type resorted to in Benares in 1810-11. And when Gandhiji recommended to the Czechs and the Poles to resort to satyagraha, it could only have been this Benares type of protest (suitably modified according to their talents) which he had in mind)

There is one major difference, however. While the people in 1810-11 could still act and move on their own, the people of India a century later could not. The century which intervened between the two (or a larger or shorter period for some other areas) wholly sapped their courage and confidence and, at least on the surface, made them docile, inert and submissive in the extreme. It is this condition which Gandhiji overcame to put the people back on the path of courage and confidence.

A contributory factor leading to the extensive adoption and success of Gandhian non-cooperation and civil disobedience has perhaps been the relative mellowness and a certain reflective quality which the twentieth century British rulers had acquired by the time Mahatma Gandhi came to launch his various movements. His own personality may have further added to this reflective quality inducing many of the British in their more private moments to share his views about the great injury which British rule had done to the Indian people. In contrast, the British rulers of the late eighteenth and the nineteenth century were by and large, not only the agents of a most callous and inhuman state system, but individually and collectively subscribed to and practised such callousness and inhumanity. What primarily brought about the change and the comparatively mellower attitudes is a matter for a different enquiry.

IV

The story of the 1810-11 protests at Benares and other towns does not necessarily include every form of protest resorted to by the Indian people in relation to governmental or other authority. A more systematic exploring of eighteenth and early nineteenth century primary records (as well as records of still earlier periods—if such exist) may well disclose several other forms of protest and their principal features. Yet it should establish beyond any doubt that the resort to non-cooperation and civil disobedience against injustice etc., are in the tradition of India. It also confirms Gandhiji's observation that 'in India the nation at large has generally used passive resistance in all departments of life. We cease to cooperate with our rulers when they displease us.' It further suggests that either intuitively or through knowledge of specific instances, Mahatma Gandhi was very much aware of such a tradition.

Does the knowledge that non-cooperation and civil disobedience are in the tradition of India have any relevance to present day India? It appears to the present writer that there is such a relevance both for the people as well as governments and other authorities. A realisation of it in fact seems crucial in the sphere of people-government relationship, and its acceptance imperative for the health and smooth functioning of Indian polity even today.

Before proceeding further, it is useful to indicate two major characteristics of the present polity which India has inherited from two centuries of British rule. The first pertains to the persistence of eighteenth and nineteenth century British notions and attitudes regarding the place of the people *vis-a-vis* their governments.

As the documents show there is frequent expression by the governmental authorities in 1810-11 of the sentiments that the people must give 'unconditional submission to public authority'; that the Government must not seem 'to yield to the influence of popular clamour'; that if Government had to yield, it must be 'without compromising in too conspicuous a manner the authority of Government.' To the Bhagalpur collector, even the postponing of the collection of the tax 'because a lawless rabble assembles, is striking at the root of that power, which the Government ought to possess over the subject.' The magistrate of Benares expressed a similar sentiment with even more anguish when reporting the situation on January 20, 1811. He wrote: 'I cannot but feel very forcibly, that such a state of things being permitted to continue in defiance of public authority, has already weakened, and weakens daily still more and more, those sentiments of respect, which it is so essential that the community should entertain for the government of the country.' Such notions and sentiments are still enshrined in the rules, codes and laws of Indian Governments.

Secondly, in spite of Mahatma Gandhi, the revival of courage and confidence has not been equally manifest amongst all people of India. As appearances go, many seem to have hardly been touched by it. Or perhaps, after an initial flicker of hope, like the people of Benares after they had been cowed down, they too have given in to 'sullen silence', feeling that though 'they could not resist but they will not concur.'

Since 1947, a controversy has been going on in India about the relevance of non-cooperation and civil disobedience in a free country. It seems to agitate all those concerned with the problems of Indian polity, including those who stand for social and political transformation or accelerated change. According to one view, there is no place for non-cooperation and civil disobedience in a free country with representative legislative bodies. According to another, these may still be resorted to in certain well-specified situations. The situations which qualify for such resort are also a matter of controversy. According to some, the permissibility applies only when resorted to enforce accepted norms. Others feel that it is permissible to resort to non-cooperation and civil disobedience for advocating the changing of certain norms themselves.

But this is really no new controversy. It started at the same time that the idea of non-cooperation and civil disobedience was revived in India early in this century. Besides men in the governmental apparatus, those who opposed it then included persons like Srinivas Sastri and Rabindranath Tagore. Sastri felt he could not but be apprehensive of 'any movement which has the tendency to over throw, the tendency to disestablish, the tendency to bring about a stage of anarchy in the country, the tendency which destroys law, the tendency which destroys order and ordered government.'[25] Tagore regarded it as inconsistent with the dignity of India and was fearful of the dangers inherent in its practice.[26]

The most vehement and argued opposition to it, however, was voiced by R.P. Paranjpye in his presidential address at the Indian National Liberal Federation at Lucknow on December 26, 1924. As it is very revealing of the thinking and attitudes opposed to non-cooperation and civil disobedience, it may be quoted here at some length. Paranjpye stated:

> The idea of civil disobedience as the highest form of patriotism that is being implanted among a large number of semi-educated people is perhaps the most mischievous feature of the present extremist propaganda. Under the names *satyagraha*, non-cooperation or civil disobedience, it is being sedulously advocated all over. The deleterious effects are already being seen...It inevitably leads to outbursts of violence whether on one side or the other...It may perhaps provide occasionally a suitable handle against government but the effect on the people is permanent. Respect for law and order disappears once for all and all the criminal elements in the population are led to think that they are becoming patriotic by imitating the so-called patriots in their actions. It must be remembered that this want of respect for law and order on the part of the masses will continue even if all the ideas of the Mahatma, Maulvis, or Deshbandhus are fully achieved. They will find, when they are responsible for the government of the country, that these seeds that they have now sown to cause trouble to government will grow into a pest which they will be unable to get rid of. I cannot think of a policy more short-sighted than this of preparing for infinite trouble for oneself

> in order to obtain a problematical momentary advantage. The extremist leaders may chuckle at a campaign for the refusal of taxes,...taxes will have to be levied and paid by the people under all governments. But once the people are taught to consider that refusal to pay taxes is the highest form of patriotism, the task of future government will become almost impossible.[27]

But as time passed and Mahatma Gandhi became the sole symbol of Indian nationalism, such opposition became less vocal. While individuals still disagreed with particular expressions of it, by the mid-1930s non-cooperation and civil disobedience emerged as the accepted Indian method of dealing with injustice. With the removal of British power from India, however, the views of Sastri, Tagore, Paranjpye, etc., once again came to the forefront. As perhaps should have been expected, the opposition or dissent has mostly been expressed by those associated with the ruling apparatus. The only curious part of it is that many of the dissenters, in the earlier period, had themselves been participants in the Gandhian non-cooperation and civil disobedience movements. But, at the same time, there was no lack of other public men who challenged this new attitude towards non-cooperation and civil disobedience. The following by J.B. Kripalani, perhaps sums up this challenge. In December 1953, Kripalani said:

> I repudiate the view developed by Congress bosses in the government that satyagraha can have no place in a democracy. Satyagraha as commended by Gandhiji was not merely a political weapon. It could be used in the economic and social fields and even against friends and family members. Gandhiji commended it as a principle of life. Therefore, it is absurd to say that it has no place in a democracy, specially of the kind that we now have, bureaucratic centralised.
>
> He added:
>
> All questions cannot await the next elections nor can a government be over-thrown on the basis of local grievances, which for sections of the people may be questions of life and death. The denial of the right of *satyagraha* would mean unresisting submission to tyranny for long stretches of time.[28]

The new opposition and dissent has, however, been more complex and somewhat less vehement. Most of it has not rejected non-cooperation and civil disobedience completely. Only it finds it irrelevant and injurious in what K. Santhanam calls 'democratic government'.[29] According to him, subject to some marginal cases 'general *satyagraha* against a democratic government cannot be justified.'[30] According to U.N. Dhebar in 1955 (President of the Indian National Congress at the time): 'In the context of democracy or democratically run institutions, there is, generally speaking, very little occasion for *satyagraha*.'[31] But even persons like Santhanam visualise the need of individuals resorting to it only in particular situations requiring the defense of fundamental rights. A former Chief Justice of India, P.B. Gajendragadkar, also seems to share such views and, as recently as March 1967, stated:

> *Satyagraha* or non-cooperation can also be regarded as a legitimate weapon in democracy, provided of course it is adopted as a last resort, after all other remedies have been exhausted.[32]

Thus, compared to the 1920's, the present opposition is substantially different. While persons in authority and position of responsibility do not still much cherish the prospect of non-cooperation and civil disobedience, there has begun to be a general acceptance of these methods in India; that instead of being destructive, they are in fact complementary to democracy. Few would today contest Santhanam's view that 'it is essential for democratic rulers to realise that true *satyagraha* is complementary to true democracy.'[33] Yet such a view has still to sink into the consciousness of those who manage the ruling apparatus or other centres of authority. It is largely because of this dichotomy, strange though it may appear, that present day non-cooperation and civil disobedience has got more and more involved with the trivial.

Without, perhaps, fully comprehending the implications of their observations, both U.N. Dhebar and K. Santhanam have pointed to the central issue. According to Dhebar: 'The question of *satyagraha* [in the context of democracy] can only arise from the perpetuation of an act or undertaking an activity which destroys the very foundation of the state or its constitution.'[34] For Santhanam, *satyagraha* may be the quickest means of defending[35] the fundamental rights of the people. Where they, along with many others, have erred is in taking a mechanical view of what acts destroy 'the very foundation of the state or its constitution' or what constituted 'fundamental rights'.

What acts of state destroy a state? What constitutes denial of fundamental rights? Answers to these cannot be determined by recourse to mere legality. To take one glaring example: large scale hunger and insecurity are both fast corroding the foundations of the Indian state and its constitution, as well as constituting a denial of the most fundamental human right. Hunger, impossible living conditions and insecurity amongst about 40 per cent of the people of India, of course, is not a creation of the present Indian state and its constitution. It is a product of the past two centuries. Nevertheless, the inability or insensitivity of the state in eliminating them, if by no other means, by a distribution of some poverty amongst all, is fast leading India to a subversion of the constitution and state structure. The practice of non-cooperation and civil disobedience for eliminating hunger and insecurity (by demanding "effective provision for securing the right of work" and "public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of undeserved want" as provided in the constitution itself)[36] could have, and may yet if initiated in time, make such subversion much more difficult, if not impossible. (*According to even someone as responsible and law-abiding as Vinoba Bhave: "In the situation where an act is advocated by law and favoured by public opinion and yet it is not being put into practice, satyagraha for its implementation should be deemed appropriate." (*Satyagraha Vichar* p.65) There is nothing less controversial in India than the immediate elimination of widespread hunger and insecurity. Its legal approval and advocacy arises from the constitution of the republic itself.)

The reasons why the British would not attend to such protests are closely linked with the lack of assurance they possessed till the very end about the legitimacy of their rule in India. In contrast, most Indian political authorities prior to British rule had much greater assurance about such legitimacy. Hence, their surrendering to the protests of the people and altering or abandoning the decisions or enactments concerned did not in any material sense challenge the legitimacy of their rule. Rather, the willingness to listen and the ability to retract unpopular acts and decisions further confirmed such habit and legitimacy both in their own view and that of the people. Only a legitimate ruler, i.e., one who was accepted to be such by the populace, could in fact make such surrender and retraction.

The British in India, on the other hand, even when in certain areas they might have been temporarily conceded some legitimacy by some or all of the ruled, never seem to have felt that their right to rule had any other sanction and legitimacy than that of conquest and an occupying armed force. It is true that their conquests were achieved by a relatively most adroit and economical use of force. Still these forces were not all that small. ((Till 1857, the European component of British occupying forces in India was as one European to four Indians and at times dropped to one European to six Indians. After 1857, when the British became completely panicky and frightened, the composition was altered to one European to two Indians and stayed at that till after 1900. The number of European troops in India was 45,104 in 1856; 92,866 in 1860; and 75,702 in 1908. While the number of Indian troops in 1856 was 2,35,221; it was 1,48,996 in 1908. (*British Parliamentary Papers*, 1908, Vol.74)))

This feeling about the lack of legitimacy prevailed throughout British rule and was shared by men as different and separate in time as Robert Clive, Thomas Munro, John Malcolm and Charles Metcalfe. 1857 made it even more apparent. The fundamental maxim for British rule in India, according to Clive, was that 'our influence and possessions were acquired, so they must be maintained by force; and that the princes of the country are only to be kept in order by fear.'[37] Fifty seven years later, Charles Metcalfe did not feel any differently; in fact he was more explicit. In a minute in 1829, he remarked:

> We are in appearance more powerful in India now than ever were. Nevertheless, our downfall may be short work. When it commences it will probably be rapid: and the world will wonder more at the suddenness with which our immense

> Indian Empire may vanish than it has done at the surprising conquest that we have achieved.[38]

Metcalfe continued:

> The cause of this precariousness is, that our power does not rest on actual strength, but on impression. Our whole real strength consists in the European regiments, speaking comparatively, that are scattered singly over the vast space of subjugated India. That is the only portion of our soldiery whose hearts are with us, and whose constancy can he relied on in the hour of trial.
>
> All our native establishments, military or civil, are the followers of fortune. They serve us for their livelihood and generally serve us well. From a sense of what is due to the hand that feeds them, which is one of the virtues that they most extol, they may often display fidelity under trying circumstances, but in their inward feelings they partake more or less of the universal disaffection, which prevails against us, not from bad government, but from natural and irresistible antipathy; and were the wind to change to use a native expression, and set in steadily against us, we could not expect that their sense of honour, although there might be splendid instances of devotion, would keep the men on our side, in opposition to the common feeling, which, with one view, might for a time unite all India, from one end to the other.[39]

Metcalfe further added:

> Our greatest danger is not from a Russian invasion, but from the fading of the impression of an invincibility from the minds of the native inhabitants of India. The disaffection, which would willingly root us out, exists abundantly. The concurrence of circumstances sufficient to call it into general action may at any time happen.[40]

A few months earlier, Metcalfe had advised: 'I am further convinced that our possession must always be precarious, unless we take root by having an influential portion of the population attached to our government by common interests and sympathies' and advocated the taking of every measure which was ‘calculated to facilitate the settlement of our countrymen in India.’[41]

Such an assessment of the situation was universally shared by the British in India and reflected in government policy and enactments. Consequently, devoid of any other sanction and legitimacy, except the ‘European regiments’ and the ‘impression of invincibility’, the British could not afford to make any concessions, much less surrender to popular protests. Concession of any sort, in their view, implied (as in the case of the protests against the house tax during 1810-11), ‘the exciting in the minds of the natives an expectation of still further concessions’ which eventually (they felt) led to the erosion of every principle of their government. Therefore, in situations when tactical concessions or surrender could not be avoided, these were to be carried ‘into execution, without compromising in too conspicuous a manner the authority of government.’

This principle of infallibility of state structure (and consequently of other units of power and authority) established by the British continues to survive in India even after the elimination of British power. It is true that finding itself very vulnerable, the state structure occasionally condescends to consider the complaints of the protesting after they agree to suspend or abandon their protests. Thus, while the reality of the principle of infallibility has been more or less abandoned, the rules, the codes and the laws which enshrine it, stay. And it is these latter that appear to provide the state system its real legitimacy and sanctity. Such a state of affairs has led to a most dangerous situation. It not only keeps intact the distrustful, hostile and alien stances of the state system *vis-a-vis* the people, but also makes the latter feel that it is violence alone which enables them to be heard. The happenings of the past several years—crammed with riots, protests, assassinations, police firings—in no way belie such a feeling.

The opposition to non-cooperation and civil disobedience or the denial of even their theoretical relevance manifested by the wielders of the state apparatus from time to time or even by men like Srinivas Sastri, Tagore, Paranjpye before 1947 can be sourced to the British nurtured doctrine of the infallibility of the state system. Though now feeble and considered wholly ridiculous, this doctrine is not yet dead and buried. Its roots, while shaky, still remain. And many amongst the present wielders of the state structure and the theoreticians of the present Indian state system devote much of their talent and attention in nurturing them.

Thus, while it is admitted that non-cooperation and civil disobedience are legitimate and valid when used against foreign rule, they are treated as illegitimate and invalid when used against indigenous governments and authorities. It is in this context that various leaders of India (not to mention teachers of history, political theory, etc.), while in general standing for an eventually classless and egalitarian society and a welfare state, have in effect allowed themselves to become the new defendants of the infallibility of the present state system. Such a doctrine—and more so, support for it—not only goes against all that Gandhiji advocated and did during his long public life, it is also contrary to the very psyche of the Indian people which has traditionally sustained the practice of non-cooperation and civil disobedience.

The above does not imply that non-cooperation and civil disobedience are to be waged perpetually—as is advocated of ‘revolution’ by certain current doctrines. They are used when there is such a need. The more the ruling apparatus and other centres of authority are in tune with the ruled or those affected, the less the need to resort to them.

It must also be admitted that non-cooperation and civil disobedience, like everything else, do not solve everything. There are social and political situations when they may not at all be applicable. As said earlier, to be successful non-cooperation and civil disobedience seem to require a certain commonality of values between the opposed parties. Such parties must share, even if temporarily, certain common socio-political or religious values. This however does not seem to happen in all situations. The late eighteenth and nineteenth century India provides one such instance when the rulers and the ruled had little in common. Similar situations seem to have obtained when most of Europe faced Hitler’s power, or Northern India faced Timur centuries ago. It was due to Mahatma Gandhi’s genius, indomitable courage and unmatched organisational capacity that he could visualise and make effective use of instrumentalities (originally fashioned for internal situations), to deal with an alien power. Circumstances (the British having become relatively mellowed by the early twentieth century being one such), and much more his personality, enabled him to make the British see at least at certain moments, the rightness and justice of the Indian stand. Step by step (from the issue of land revenue to the boycott of foreign goods to the abrogation of salt tax to the banning of liquor shops to the protests against India being forced into war), he led to the ultimate demand that the British ‘Quit India’. He even recommended these methods to the Czechs and to the Poles against Hitler. But such use or its advocacy against an alien power in no way implied the irrelevance of non-cooperation and civil disobedience against rulers or authorities who get elected or are appointed by the ruled themselves.

Non-cooperation and civil disobedience are integral to the healthy functioning and even to the security of a free and democratic society. In a way, they are even more crucial than stratified courts of law; the present forms of periodic local, state-level or national elections, or the rather stilted and constrained debates and considerations within such elected bodies. Those who resort to non-cooperation and civil disobedience against callousness, authoritarianism and injustice are the protectors of their state and societies. Without them, a society will end up at best in some mechanical ritual; or, more often likely, in tyranny, provoking complete anarchy and armed insurrection.

Notes

1. *Encyclopaedia of the Social Sciences* (1963), Article on Thoreau, by Max Lerner.
2. Atulananda Chakravarti, *The Lonesome Pilgrim* (1969), p.32.
3. C.D.S. Devanesan, *The Making of the Mahatma* (1969), pp.378-9.
4. R.R. Diwakar, *Saga of Satyagraha* (1969), pp.8-11.
5. Buddhadeva Bhattacharya, *Evolution of the Political Philosophy of Gandhi* (1969), p.286.
6. V.V. Ramana Murthi, *Non-Violence in Politics* (1958), p.148.
7. Gene Sharp, *Thoreau: On the Duty of Civil Disobedience* (1963), p.1.
8. Kaka Kalelkar, ‘Evolution of the Philosophy of Satyagraha’ (1969), published in *Gandhi Darshan, (1869-1969) October 2, 1969— February 2, 1970. A Souvenir.*
9. R. Payne, *The Life and Death of Mahatma Gandhi* (1969), p.217.
10. Kaka Kalelkar: *ibid.*
11. j|É®úÊIÉiÉÉ®Æú ½þiÉÉÇ®Æú Ê´É±ÉÉä{iÉÉ®ú¨ÉxÉÉªÉEò¨ÉÂ * iÉÆ ´Éè ®úÉVÉEòÊ±É ½þxªÉÖ: |ÉVÉÉ: ºÉzÉrùªÉ ÊxÉvÉÞÇhÉ¨ÉÂ ** j|É½Æþ ´ÉÉä ®úÊIÉiÉäiªÉÖCi´ÉÉ ªÉÉä xÉ ®úIÉÊiÉ ¦ÉÚÊ¨É{É: * ºÉ ºÉÆ½þiªÉÉ ÊxÉ½þxiÉ´ªÉ: ¶´Éä´É ºÉÉäx¨ÉÉnù j|ÉÉiÉÖ®ú: ** j|ÉxÉÖ¶ÉÉºÉxÉ 61.32-33; j|ÉºÉi{ÉÉÊ{É¹`öºÉÊSÉ´ÉÉä ´ÉvªÉÉä ±ÉÉäEòºªÉ vÉ¨ÉÇ½þÉ * ¶ÉÉÎxiÉ 92.19

The Mahabharata, quoted by P.V. Kane, *History of Dharmasastra*, Vol.III (1946), p.26.

12. James Mill, Evidence to House of Commons Committee, in *House of Commons Papers*, 1831-32, Vol.XIV, pp.6-7.
13. *Hind Swaraj* (1946), p.58.
14. *Ibid*, p.60.

15. *Ibid*, p.61.

16. Fort St. George: *Diary and Consultations*, November 1680.

17. India Office Records (I.O.R.), *Board's Collections: F/4/ Vol.1415, No. 55844A*, Assistant Collector to Principal Collector, Canara, January 17, 1831, pp.158-61.

18. *Ibid.*

19. *Ibid.*

20. The Bombay Presidency Political and Judicial Records for the period 1820-40 contain voluminous material on the numerous 'Bunds' organised by the people in Maharashtra against the British. One of these was the 'Poorundhur Bund' organised largely by the *Ramoosees* during 1826-28.

21. J. Mill: *Ibid.*

22. Gopal Krishna Gokhale, quoted in *The Development of lndian Polity* by M. Ramchandra Rao, B.A. BL., M.L.C. (Madras, 1917), p.291.

23. West Bengal State Archives: 'Bengal Judicial Criminal Proceedings', February 8, 1811, *Original Consultations*, No. 6.

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26. D. G. Tendulkar, *The Mahatma* (1951-4) Vol.II, pp.59-60.

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28. *Janata* (weekly): January 26, 1954: J.B. Kripalani's speech quoted in leading article; also text on January 17, 1954, p.3.

29. K Santhanam, *Satyagraha and the State* (1960), p.62.

30. *Ibid.*

31. *Times of India*: September 22, 1955: U.N. Dhebar's article on 'The Rationale of Satyagraha'.

32. *Free Press Journal*: March 3, 1967: Press Report of Lecture.

33. K. Santhanam: *Ibid*, p.67.

34. *Times of India: Ibid.*

35. K. Santhanam: *Ibid*, p.67.

36. *The Constitution of India*: Article 41.

37. I.O.R: *Francis Papers*: MSS Eur E. 12, p.37: *Hints of a Political System for the Government of India (cir. 1772).*

38. London Public Record Office: Ellenborough Papers: PRO/30/9/4/Part II/2. Minute dated October 11, 1829 by C.J. Metcalfe.

39. *Ibid.*

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DOCUMENTS

I

OFFICIAL NARRATIVE OF EVENTS

A. EVENTS AT BENARAS

I.A.1. *Collector of Benares to Acting Magistrate*

26.11.1810

W. W. Bird Esq.,
Acting Magistrate of the City of Benares

Sir,

In order to carry into execution in the city of Benares the rates laid down in Regulation XV, 1810 for the establishment of a tax on houses and shops, permit me to solicit your interference to give the utmost publicity to the said Regulation which it is incumbent on all householders to be aware of, both to induce their ready compliance with the demands which will be made on them when the assessment shall have been concluded and approved of, and to enable me to obtain, in the first instance, the necessary information as to the number of tenements & c and general rates of rent by which the said assessment is to be fixed. It is my wish, both in commencing the previous enquiries and in proceeding to levy the tax, that every precaution shall be adopted in concert with you to avoid creating disgust or giving rise to complaints.

I propose to depute two or more respectable persons, assessors, to take an account of the houses and shops in each mehulla and to compute, as accurately as can at first be expected without too rigid a scrutiny, the usual rates of rent of each.

If the proprietors and occupants, in consequence of the notice given them by the present proposed promulgation of the Regulation, will be induced to furnish a faithful account of the rents they receive and pay, I hope it will not be necessary for my officers to make any entry in order to ascertain the rates of tax to be levied, by personal survey of the premises.

In instances of obstacle or impediments on the part of the house-holders I shall enjoin the officers to take no steps without particular instructions from me, and if it should be expedient, I shall communicate with you on such occasions in order to compel acquiescence.

If it could be possible to allow a police officer of each ward or mehulla to accompany the persons deputed on this service until the numbers of the houses & c shall be taken, I can conceive it might prevent improper disputes and would facilitate the introduction of the tax.

I beg leave to enclose for distribution to the several thannahs of the city and its suburbs 10 transcripts of the Regulation and will supply more hereafter. It will be desirable that a copy for general perusal should be allowed to be taken by individuals at pleasure.

I shall likewise acquaint you, hereafter, with the names of the assessors I may employ and of the mehullas where I first propose to send them.

Section IV of the Regulation in question having constituted the extent of the operation of this tax to be the limits fixed under Regulation X, 1810, permit me to request that you will acquaint me with the line of demarcation which may have been notified to you by the Collector of Town Duties agreeably to section VII of the last mentioned Regulation.

Benares Collectorship
November 26, 1810

I have & c
W. O. Salmon, Collector

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I.A.2. *Collector of Benares to Acting Magistrate*

6.12.1810

W.W. Bird Esq.,
Acting Magistrate of City of Benares

Sir,

With reference to my letter of 26th ultimo, I beg leave to acquaint you that I have committed the charge of numbering the houses, (i.e., reckoning them by account, not affixing marks of numbers which at first might be obnoxious to the inhabitants) in the city of Benares to Mohummud Tukkee Khan, a native of rank, reputation and ability, in whom I have full confidence that the service will be performed with equal fidelity to Government, as with all consistent attention and consideration towards the natives.

I have to solicit the favour of you to furnish me as speedily as possible with perwannahs to all the thannadars of the city wards and the suburbs enjoining them to afford the utmost assistance to and cooperation with Mohummud Tukkee Khan and the moosuddies whom he may have occasion to depute under his immediate superintendence. It is my intention to entrust these perwannahs to Mohummud Tukkee Khan who will send them to the said thannadars as he commences upon their divisions, and he will at the same time notify to them the names of the moosuddies to be employed in each mehulla. I believe he will commence with Tallua Nallah.

Benares Collectorship I am & c
December 6, 1810 W.O. Salmon, Collector

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I.A.3. *Acting Magistrate to Collector, Benares*

11.12.1810

W.O. Salmon Esq.,
Collector of Benares

Sir,

I have the honour to acknowledge the receipt of your letters of the 26th ultimo and 6th instant.

2. The copies of Regulation XV, 1810 have been distributed at the several thannahs in the city, and the thannahdars directed to allow copies to be taken by all who may desire it.

3. The thannahdars have also been directed to point out to the assessors of the house tax the extent of their respective wards, to furnish them with such information as from local experience they may possess, and generally to promulgate that your officers appointed under Regulation XV, 1810 are acting by the authority of Government.

4. I have not, however, instructed the native officers of police to accompany the persons deputed by you on this service, as I apprehend, that their direct or indirect interference with the

assessment, would be liable to abuses as well as objectionable to the inhabitants. Should any obstacle or impediment on the part of the householders be opposed to your officers in the legal execution of their duties, I shall, of course, upon intimation from you, issue specific instructions to the officers of police to enforce acquiescence.

5. I have the pleasure to enclose a copy of the paper transmitted to me by the Collector of Town Duties, under section VIII, Regulation X, 1810.

City of Benares — I am & c
December 11, 1810 — W.W. Bird, Acting Magistrate

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I.A.4. *Acting Magistrate, Benares to Government*

25.12.1810

G. Dowdeswell Esq.,
Secretary to Government,
Judicial Department.
Fort William

Sir,

I should not be justified in withholding from the knowledge of the Right Hon'ble, the Governor-General-in-Council, that a very serious situation has been excited among all ranks and descriptions of the inhabitants of the city by the promulgation of Regulation XV, 1810.

2. The petitions (copies of which will be separately dispatched to you by today's dawk) have been presented to me by the inhabitants collectively, who are surrounding me in crowds, imploring me to report their situation for the consideration of Government.

3. All the petitions are directed to obtain exemption from the tax on houses, which is extended to Benares by the Regulation in question. They set forth generally the inability of the petitioners to bear the burden which it imposes. They state that the stagnation of trade has deprived them of employment, that the town duties levied under Regulation X, 1810 have enhanced the price of every article of consumption, and that their houses are already subjected to an assessment for the support of the police from which any other city, but this in India is exempted.

4. It will appear to Government I apprehend, that the difficulty of procuring employment, and the enhanced price of articles of consumption, form no sufficient grounds for specially exempting the inhabitants of this city from the tax imposed by the Regulation; the same grounds of exemption could perhaps be urged with equal justice by every other city and town to which the Regulation has been extended.

5. But it may appear at the same time that some remission might be granted to the petitioners, in consideration of the tax to which their houses are already subjected for the support of the police. The local watchmen stationed at the Phatucks or gateways in this city, are maintained by the inhabitants of the wards to which the gateways respectively belong, who contributed to defray the expense in proportion to the number and description of their houses. The monthly contribution raised from 10,241 houses which are assessed under this arrangement amounts to 1,334-6-10½. This sum is considerable, and will press heavily on the householders in addition to the tax from which they claim to be exempted.

6. The people are extremely clamorous; they have shut up their shops, abandoned their usual occupations, and assemble in multitudes with a view to extort from me an immediate compliance with their demands, and to prevail with me to direct the Collector to withdraw the assessors until I receive the orders of Government. With this demand I have not thought proper to comply. I have signified to the people that their petitions shall be transmitted to the Government, but that until the orders of Government arrive, the Regulation must continue in force, and that I shall oppose every combination to resist it. By conceding to the general clamour I should only have encouraged expectation which must be eventually disappointed, and have multiplied the difficulties which the introduction of the tax has already to contend with.

7. The agitation this evening has been so considerable that I felt it necessary to intimate to Major-General Macdonald the possibility of my being compelled to apply for military assistance. Towards night, however the multitude dispersed, and I hope yet to be able to pacify them and induce them to return to their usual pursuits, without resorting to coercion.

City of Benares I have & c
December 25, 1810, 8 O'Clock W.W. Bird, Acting Magistrate

I.A.5. *Acting Magistrate, Benares to Government*

28.12.1810

Sir,

On the 25th instant, I had the honour to communicate to you the very serious agitation which had been excited among all ranks and description of the inhabitants of Benares, and the course which I intended to observe for the purpose of subduing it.

2. The tumultuous mobs which were collected in various places between the city and Secrole on the evening of the 20th instant, and which dispersed on the first appearance of preparations among the troops, did not reassemble on the morning of the 26th, and I was induced to hope that the people in general were disposed to return to order and obedience.

3. But in the afternoon the agitation was revived. An oath was administered throughout the city, both among the Hindoos and the Mahommedans, enjoining all classes to neglect their respective occupations until I should consent to direct the Collector to remove the assessors and give a positive assurance that the tax should be abolished. It was expected that the outcry and distress occasioned by this general conspiracy would extort from me the concession they required. The Lohars, the Mistrees, the Jolahirs, the Hujams, the Durzees, the Kahars, the Bearers, every class of workmen engaged unanimously in this conspiracy, and it was carried to such an extent that during the 26th, the dead bodies were actually cast neglected into the Ganges, because the proper people could not be prevailed upon to administer the customary rites. These several classes of people, attended by multitude of others of all ranks and descriptions, have collected together at a place in the vicinity of the city, from whence they declare nothing but force shall remove them, unless I consent to yield the point for which they are contending.

4. Their object in requiring me to direct the Collector to recall the assessors without waiting to receive the orders of Government, is merely a preliminary step to a resolution not to pay the tax at all without coercion, be the orders of Government what they may. I have signified to the people that I have no authority to interfere in the manner they desire, and that they must wait, submissively, the determination of Government, but they seem to think that if the assessors are not removed immediately, they will never be removed at all, and that if they cease to assemble

in this objectionable mode, they will obtain no relief from the tax which, it is pretended, they never can submit to.

5. Were I to yield to demands urged by the clamour, and supported by such unwarranted combinations, I feel I should compromise the authority of Government, and thereby encourage the people to similar proceedings on every future occasion when they may happen to be discontented. I conceive it, therefore, my duty not to comply with such demands, and to persevere in resisting them until I receive the Government's instructions. In the meantime, I shall do all that my persuasion can affect to allay the general irritation, and abstain from resorting to force, until the support of my authority shall absolutely require it.

6. In pursuance of these views explained in person to the mobs, the orders which I expected them to obey, I also issued proclamations requiring the people to disperse, to return to their usual occupations, and wait in patience whatever Government may determine. I sent for the choudries of the respective classes engaged in the conspiracy, and after taking their examinations, I required them to sign a penal engagement to withdraw from the combination, to revert to their ordinary pursuits, and to exert themselves with others to imitate their example. A similar engagement I propose to tender to the principal people of all classes, and punish those who refuse to sign it. This line of conduct appears already to have produced some benefit, and I trust that in a few days, when the people are fully convinced that their clamour is unavailing, they will disperse, open their shops, and return to order and obedience.

7. As the Collector is absent in the district, I have thought it necessary to recommend him immediately to return, that the native assessors be not left entirely to their own discretion on this very delicate occasion. I enclose a copy of letter to him upon the subject, and also the copy of a correspondence, which previously passed between us.

8. I beg leave to enclose also a copy of the letters which passed between Major-General Macdonald and myself on the 25th and 26th respecting the military assistance which I might be compelled to request him to afford me.

9. In my haste on the 25th, I omitted to apologise for my inability to furnish translations of the petitions which I then submitted to Government. I have now the honour to enclose translations of three of those petitions which as they contain the

substance of the rest, will, I trust, be sufficient. I hope, Government will excuse my neglecting to translate the remainder in consideration of the other important duties which press upon my attention.

City of Benares I have & c
December 28, 1810 W. W. Bird, Acting Magistrate

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I.A.6. *Acting Magistrate, Benares to Government*

31.12.1810

Sir,

Since the date of my last address, my attention has been unremittingly directed to allay the irritation which exists among the inhabitants of Benares, and to persuade them to return to their ordinary pursuits until the determination of Government can be received on the subject of their petition.

2. But my endeavours have been unavailing. All classes of people persevere in abandoning their employments, and occasion thereby great public inconvenience. Every article of consumption is procured with such difficulty, and is raised to so high a price, that the poorer inhabitants are distressed. Several thousands of people continue day and night collected at a particular spot in the vicinity of the city, where, divided according to their respective classes, they inflict penalties upon those who hesitate to join in the combination. Such appears to be the general repugnance to the operation of the Regulation, that the slightest disposition evinced by any individual to withdraw from the conspiracy, is marked not only by general opprobrium, but even by ejectment from his caste.

3. In this state, the people seem resolved to continue until the orders of Government are received and they hope by this means to extort the repeal of the Regulation. I have endeavoured to observe the most conciliatory line of conduct, to allay the general irritation. I have repeatedly gone to the place where they are collected, and have done all in my power to persuade them to return to their proper occupations. I have written to the Rajah of Benares, to the principal merchants, and to the other inhabitants of rank and respectability, requesting them personally to exert their influence with the people to pacify and disperse them.

4. But as all the endeavours prove ineffectual, and as the continuance of such a state of things in a city so populous and extensive can not be viewed without considerable apprehension for the public tranquility, I determined upon requesting the favour of a personal interview with Major-General Macdonald to explain to him the general disposition of the people, and to suggest to him the expediency of being prepared for any possible emergency. The measure of sending for his Majesty's Regiment was consequently resolved upon, and I trust under the circumstances of the case, it will receive the approbation of Government. I have the honour to enclose a copy of our correspondence.

City of Benares — I have & c
December 31, 1810 — W. W. Bird, Acting Magistrate

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I.A.6 (a) *Major-General Macdonald to Acting Magistrate, Benares*

31.12.1810

Sir,

In consequence of the conversation which passed between us this morning, wherein you expressed your apprehension, that the present state of irritation of the minds of the people of Benares may increase and eventually induce them to proceed to acts of violence, which I consider the small force now at the place is ill-suited to repress. If therefore you are still of the same way of thinking, I shall, on receipt of your reply to this, send immediate orders for His Majesty's 67th Regiment to repair to this place. In which case, I beg to observe, it will be necessary you give immediate instructions, for every thing required from your department, to assist the corps in its march being ready.

Benares, half past 12 at Noon — I have & c
December 31, 1810 — J. Macdonald, Maj-General

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I.A.7. *Acting Magistrate, Benares to Government*

2.1.1811

Sir,

My address of the 31st ultimo, dispatched by express, will have communicated to the Right Hon'ble, the Governor-General-in-Council the circumstances, which had rendered it expedient to call for the assistance of his Majesty's 67th Regiment at this station.

2. I am deeply concerned to state that the combination formed against the introduction of the house tax becomes daily more extended, and has assumed a very serious appearance. The people continue to desert the city, and collect in increasing numbers at the spot, where they have resolved to remain in expectation of the orders of Government. No assurance on my part, or on the part of the civil authorities at this station, has the slightest effect. They look to the orders of Government alone for relief from a grievance to which they are resolved never to submit and I am convinced no persuasion will ever prevail with them to swerve from their resolution.

3. There is too much reason to apprehend that this combination extends throughout the province. The Lohars who originally assembled for another purpose, soon took a principal part in the conspiracy, and have collected here in great numbers from all parts of the province. The inconvenience suffered in consequence by ryots, threatens serious impediment to cultivation, and multiplies the number of the discontented. At the same time the people are integrated to persevere by the notion which prevails, that the inhabitants of other cities have engaged to conform to the issue of the struggle at Benares.

4. Under these circumstances, it is seriously to be apprehended that military force alone can carry the Regulation into effect. The aversion to the tax is so decided, that the people will be satisfied with nothing but its total abolition. There appears to be little doubt in the minds of most people, that the attempt to introduce it under any modification, will give rise to serious disturbances.

5. The principal natives, whose influence, if cordially exerted, would have effect with the people, evince little or no disposition to assist me. All equally interested in the success of the combination, they will not exert themselves effectually. The personal influence of Mr.Brooke, the Agent of the Governor-General,

might be more successful with them. I have consequently written to that gentleman to recommend his returning immediately from the Circuit, and hope that the respect which the inhabitants entertain for his rank and character, may dispose them to listen to him with attention.

City of Benares I have & c
January 2, 1811 W.W. Bird, Acting Magistrate

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I.A.8. *Acting Magistrate, Benares to Government*

4.1.1811

Sir,

I have the honour to report for the information of the Right Hon'ble, the Governor General in Council, that since my dispatch of the 2nd instant, very little alteration has taken place in the state of this city.

2. I have much pleasure, however, in communicating, that the intrigues set on foot to extend the combination throughout the province, appear likely to be effectually counteracted before any considerable mischief can result from them. As soon as I discovered that the Lohars were collecting here from the surrounding pergunnahs I called upon the landholders to exert their authority against a mischief which would retort upon themselves. I required them to recall the Lohars to their respective estates, and compel them to work, and at the same time to counteract the misrepresentations employed to deceive the people. All those landholders with whom I have communicated, appear to enter cordially into my views, and have exerted themselves effectually. I am greatly indebted for assistance in this respect to Baboo Sheo Narain Singh, Jagirdar of Siedpoor, the only native of consequence who has supported me on this occasion. I am also indebted to him for protecting the bazars in the city wherever his influence extends, and it is through the support which he has afforded the police, that the corn markets have been unmolested, and the city supplied with corn at the usual price, when no other article of consumption was procurable.

3. The people of different classes collected together in expectation of the orders of Government, begin to feel themselves the distress which they inflict upon others, and some of them

return occasionally to their pursuits. I have reason to believe that they have hitherto been supported by private contributions among the principal inhabitants, who supply them with firewood and provisions; but as these resources begin to fail, they become sensible of the ruin which their conduct will ultimately bring upon their families.

4. Much dependence however can not at present be placed upon these favourable circumstances, for the religious orders of the people, and the men of rank and respectability, continue unalterable in their resolution, and encourage the multitude to persevere by every kind of artifice and persuasion. The principal people of every class are compelled to eject all those who are detected in attempting to withdraw from the combination. They also send forth spies in all parts of the city to seize the delinquent, and I have apprehended many employed upon this service. I have, of course inflicted upon such persons very severe punishment, but it does not deter others from committing similar outrages.

5. I shall continue to do everything in my power, until the orders of Government arrive to prevent disturbance by the means of the police, and as I have succeeded hitherto, I trust, there will be no immediate necessity to call for the assistance of the troops. Considering the nature of the struggle, it has appeared to me advisable to abstain from violence as long as it can be avoided without any great sacrifice, and I trust in doing so, I shall have acted conformably to the wishes of Government.

City of Benares　　　　I have & c
January 4, 1811　　　　W.W. Bird, Acting Magistrate

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I.A.9. *Acting Magistrate, Benares to Government*

8.1.1811

Sir,

It is with the greatest satisfaction that I am able to report for the information of the Right Hon'ble, the Governor General in Council, that the inhabitants of this city begin to be sensible of the inutility and danger of continuing longer in a state of insubordination to the authority of Government.

2. In order to explain the circumstances which have produced this very desirable effect, I will state more minutely than has been hitherto in my power the alarming situation we were placed in at the beginning of the month. The people of all description, collected according to their several classes in the vicinity of the city, had bound themselves by oath never to disperse without extorting the object they were extending for, and they seemed to increase daily in numbers and resolution. They employed emissaries to convey a Dhurm Puttree to every village in the province, summoning one individual of each family to repair to the assembly at Benares. Several thousand Lohars, Koonbees, and Korees, were enticed from their houses, and collected here by this excitement. At the same time, the inhabitants continued to withdraw from the city, and even those who were unwilling were compelled to abandon their pursuits, to avoid the opprobrium and punishment denounced against all and inflicted upon many, who declined joining in the conspiracy. The individuals of every class, contributed each in proportion to his means, to enable them to persevere, and considerable sums of money were thus raised for the support of those, whose families depended for subsistence on their daily labour.

3. The multitudes, thus assembled, were abundantly supplied with firewood, oil, and provisions, while nothing in the city except grain was procurable. The religious orders exerted all their power over the prejudices of the people to keep them unanimous, and the combination was so general, that the police were scarcely able to protect the few who had courage to secede, from being plundered and insulted. In this state we continued, until the 3rd instant, in momentary expectation of some serious disturbance.

4. On the 3rd, however, the measures adopted against these seditious proceedings, began to be attended with effect. The landholders had taken alarm, and immediately upon the proclamation, sent their people and carried off the numbers of the Korees, Koonbees, and Lohars to their respective estates. At the same time, some of the emissaries employed in distributing the Dhurm Puttree were apprehended by the police and this mischief was soon checked by the measures taken to seize such incendiaries wherever they could be detected.

5. As there appeared, among the multitude assembled in the vicinity of the city, many men of rank and good character, I stationed people on the way to write down the names, and to inform them they were acting in defiance of my authority. This

gradually deterred many of them from appearing in the assembly. In the same manner I stationed the police officers on the roads to watch the supplies, and ascertain by whom they were provided, in consequence of which many of the principal inhabitants declined longer to furnish their daily contributions.

6. Much public inconvenience was likely to arise from the Mullahs being drawn into the conspiracy, the communication with the opposite bank of the river was almost interrupted and I was compelled to proclaim, that every boat abandoned by the proprietor, should be forfeited to Government. The Mullahs in consequence soon returned to their duties. At the same time several persons of different classes employed to extend the combination were detected by the police, and punished with exemplary severity. These examples, often repeated, began at length to deter others from incurring the consequence of similar offences.

7. These measures, assisted by the fatigue and privations which began to be felt seriously by all, convinced the people of the inutility of their proceedings, and they diminished sensibly in numbers. I resolved to avail myself of this state of things to endeavour once more to persuade them to disperse, and for this purpose I sent for several of those, whom I know, or suspected, to be the first movers of the combination.

8. Most of these persons seem to be sensible, that it is only by dispersing that the people can expect indulgence from the Government, and they professed themselves disposed to do everything in their power to persuade all classes to return to their regular pursuits; very great alteration appears already to have taken place in consequence. Yesterday and today, many shops are open in the city, every article of consumption is again procurable. Numbers have returned to their daily occupations and the irritation has almost entirely subsided and I have little doubt that in the course of a few days this combination, now no longer formidable, will be totally dissolved.

City of Benares I have & c
January 8, 1811 W.W. Bird, Acting Magistrate

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I.A.10. *Collector, Benares to Government*

2.1.1811

The Secretary,
Government of Bengal, Revenue Department
Fort William

Sir,

The Acting Magistrate of the city has already addressed you, for the information of Government, on the subject of the determination of the inhabitants to oppose the operation of Regulation XV, 1810, and of their factious inconsequence of such determination.

I beg leave to annex copies of my correspondence with the Magistrate as to the mode I proposed to pursue, in introducing the house tax which will, I trust, manifest every intention of lenity, precaution and consideration.

In consequence of the Acting Magistrate's summons I arrived from the interior of the district yester evening. I am given to understand that considerably above twenty thousand persons are sitting (it may be called dhurna), declaring that they will not separate till the tax shall be abolished. Their numbers are daily increasing from the Mofussil whence each caste has summoned its brethren and adjured them to unite in the cause. If one party be more obstinate and more determined upon extending the mischief than another, the Lohars, or blacksmiths, may be so charged, for they were not only the first to convoke the assembly of their near brethren, but they have far and wide called upon other Lohars to join them with the intent that no implement of cultivation or of harvest (which is fast approaching) be either made or mended, and thus that the zemindars and ryots may be induced to take part with the malcontents, in short that the whole of the country shall directly or indirectly be urged to insist on the repeal of the tax.

With these Lohars almost all other castes, sects, and persuasions are in league and I am informed under a most binding oath amongst each other.

At present open violence does not seem their aim, they seem rather to vaunt their security in being unarmed in that a military force would not use deadly weapons against such inoffensive foes. And in this confidence they collect and increase, knowing that the civil power can not disperse them, and thinking that the military will not.

All the civil authorities have attempted admonition, warning and persuasion and the Acting Magistrate has been indefatigable in his exertions, but without avail. They profess that they shall wait the order of Government, but not apparently with any determination of ultimate submission.

If they do not submit, they can only have two objects in view, resistance by force of arms, or emigration. The latter, though said to be threatened, I confess, I do not apprehend. For, the moment the mob breaks up, at that moment the charm is broken. Their mutual oaths of union, their resolution of death or banishment, will be dissolved and each individual will consult his private interests. But how to disperse the mob without a cruel sacrifice of lives appears most difficult, for as I before observed, they are alike deaf to admonition or remonstrance. I had a number of Lohars with me today, and after having for a long time explained to them that the tax, in question would not be a hard one upon them, that I would exert myself to recommend that they should not be subjected to the two cesses of Phatuckbundee and house tax and that if they would break up their 'Mujlis' and repair to their homes, I would listen to every single complaint of every individual as to the rate of tax being excessive upon them, and as far as was possible would consult their advantage; they replied that they were one and indivisible and if their 'Punch' would consent, they would have another conference with me tomorrow.

Although their numbers are yet quiet in point of action, if they be not dispersed before the orders of Government arrive, there is no knowing what despair may drive them to. In the meantime if the mischief of total annihilation of trade and handicraft in the city be widely extended to the country, it may stir up the land-holders who are at present not at all concerned in the question.

It is to be lamented that cavalry were not within call, who might have dispersed the multitude without committing slaughter, and might have hunted them wherever they assembled; for amongst them they do not appear to have any head or a leader who might summon them to more private and inaccessible haunts and though they are doubtless maintained, secretly supported, and stimulated by affluent persons and persons of consequence in the city, none of these latter descriptions would I imagine risk, the consequences to their character, persons and property of more treasonable cabals, beyond the talents and the plans of a mere tumultuous rabble. That Government should at the instance of a mob consent to withdraw or repeal a law established for the whole country can hardly be supposed, and it is therefore essential to provide against the consequences of refusal to the clamorous petitions that have been transmitted.

I have learnt from good authority that the inhabitants of Patna have written to Benares to the effect that they shall be guided by these. That being more numerous, the Benares city is better able to make exertions against the tax and if it shall succeed in procuring abrogation the city of Aminabad would become exempted of course; in like manner, if the Benares city submits then Patna will immediately follow its example.

Thus whilst it will be seen how extensive the combination is, it will also be considered that Benares is the cornerstone on which the other cities build.

Benares Collector's Office I am & c
January 2, 1811 W.O.Salmon, Collector

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I.A.11. *Government to Acting Magistrate, Benares*

5.1.1811

Sir,

I am directed by the Right Hon'ble the Governor-General-in-Council to acknowledge the receipt of three letters from you, dated the 25th, 28th and 31st ultimo, with their respective enclosures.

2. The Governor-General-in-Council does not discern any substantial reasons for the abolition of the tax on houses in the cities and principal towns established by Regulation XV, 1810. With these sentiments, His Lordship in Council further thinks that it would be extremely unwise to sacrifice to riot and clamour a tax, the abolition of which is not dictated by any considerations of general policy.

3. The Governor-General-in-Council approves the measures adopted by you on the present occasion, and His Lordship-in-Council desires that you will continue to exercise the firmness and moderation, hitherto manifested by you, in enforcing the provisions of the above mentioned Regulation and supporting the authority of the Collector.

4. One ground of objection stated by the petitioners is that they are already subject to a contribution for the pay of chokeydars and the repair of the gateways (Phatuckbundee) which is not paid by the inhabitants of other cities. As it occurs to Government that this contribution, united to the tax on houses established by the above mentioned Regulation, might fall heavy on particular classes of people, it is the intention of Government that they should be relieved from the former, and that the expense of the Phatuckbundee should be defrayed from the general resources of Government. You are accordingly authorised to communicate this intention to the people interested in the operation of it, in such mode as you may deem best calculated to allay the disposition to riot and resistance to public authority, which appears so generally prevalent among lower orders in the city of Benares. It appears to Government that the most advisable course to pursue on the present occasion will be to apprise Major-General Macdonald of the intentions of Government, as above stated, to concert with him the arrangements which should be adopted for the suppression of any attempt to resist your own authority or that of the Collector, or to injure the peaceable and obedient part of the community by open violence, and for the dispersion of mobs and the apprehension of the ring leaders of them, with a view to a regular prosecution against such offenders and thereupon to announce to the public the firm intention of Government to enforce the collection of the tax on the one hand; and the indulgence which it is disposed to manifest by relieving them from the contribution on account of the Phatuckbundee on the other. You will, of course, take the same opportunity of impressing on their minds the serious evils, which they are liable to bring upon themselves by further perseverance in resistance to the authority of Government. It may at the same time be expedient to apprise them that with every disposition to afford to the people every reasonable indulgence and to protect them in the enjoyment of every right, the Governor-General-in-Council never can yield to lawless combinations or to attempts made to enforce a compliance with their applications by tumultuary meetings and proceedings.

5. You will, of course, avail yourself of the influence of the Rajah of Benares and of other persons of rank and character, to aid in the suppression of the spirit of riot and sedition by which the populace is at present actuated.

Council Chamber — I am & c
January 5, 1811 — G. Dowdeswell, Secretary to Government

I.A.12. *Government to Acting Magistrate, Benares*

7.1.1811

Sir,

I am directed by the Right Hon'ble the Governor-General-in-Council to acknowledge the receipt of a letter from you, dated the 2nd instant.

2. My letter of the 5th instant will have informed you of the resolution of Government not to rescind the provisions of Regulation XV, 1810. The same dispatch will have apprised you of the sentiments of Government respecting the absolute necessity of dispersing (if actually necessary, by force of arms) the mobs assembled with a view to extort from Government a compliance with their unreasonable applications, and likewise the expediency of apprehending the leaders of them, in order that they might be regularly brought to trial for that offence. The Governor-General-in-Council is desirous that it should be understood that he intended by the above mentioned orders, that with the aid of the military, you should apprehend all persons, who might refuse to disperse on your requisition, especially those who may be chiefly active in fomenting the present sedition.

3. It is with extreme reluctance that the Governor-General-in-Council is at any time compelled to employ the military force of the country, to enforce the Regulations and orders of Government, and maintain the authority of the public officers. His Lordship-in-Council is solicitous that every thing should be done by yourself and the Collector, by means of wholesome admonitions, to reclaim the people from their present lawless and seditious proceedings, that the military should not employ their arms except in case of actual necessity, that is, of any positive act of violence on the part of the mob against the troops, or any of the civil authorities. You are in consequence desired to communicate the foregoing orders to Major-General Macdonald, in order that he may be fully apprised of the course which should be pursued by him and the troops under his command on the present emergency.

4. The Governor-General-in-Council approved the application made by you to Mr. Brooke to return to his station, and to exercise all the influence which he may possess, to induce the Rajah of Benares and other persons of rank, to aid in suppressing the present disposition to riot and disturbance. With the

same view, a letter will be addressed on the subject to the Rajah by the Governor-General.

5. You will apprise the Collector of Benares of the orders passed by Government on the 5th instant, and on the present date, it appearing essential that the different public authorities should possess full information regarding the resolutions of Government to enforce the provisions of the Regulation respecting the house tax.

6. It appearing to his Lordship-in-Council, that a proclamation issued by the direct authority of the Government itself, may be of service in reclaiming the people from their unjustifiable proceedings, or at all events, in apprising them of the evils which they may bring upon themselves by a further perseverance in those lawless measures, I am directed to transmit to you the enclosed copy of a proclamation in the English, Persian and Hindoostany languages. You will, of course, exercise your discretion with reference to the military arrangements to be made by General Macdonald, as to the period or time at which the proclamation should be issued.

I am & c
G. Dowdeswell,
Secretary to Government,
Judicial Department

Council Chamber
January 7, 1811

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I.A.12 (a) *Fort William Proclamation*

January 7, 1911

By the Right Hon'ble the Governor-General-in-Council

Whereas by Regulation XV, 1810, a light and moderate assessment has been established on shops and houses situated in the cities and some of the principal towns in the provinces of Bengal, Behar, Orissa and Benares, and in the Ceded and Conquered Provinces; and whereas it has come to the knowledge of the Governor-General-in-Council, that certain classes of people at the city of Benares have assembled in a tumultuary manner and have otherwise illegally combined to resist the enforcement of the above mentioned Regulation; and whereas the Governor-General-in-Council on a mature consideration of the petitions which have been transmitted to him on this subject, does not discern any substantial reasons for repealing the provisions of that Regulation, the different classes of people above noticed, and the inhabitants in general of the city of Benares, are hereby apprised, that instructions have been issued to the Magistrate and Collector to carry the provisions of the said Regulation into effect, and that correspondent orders have been issued to the officer commanding the troops in that province to support the Magistrate and Collector in the discharge of that duty, and especially to exert himself in dispersing tumultuary meetings, and in bringing to justice persons attending such meetings, or otherwise aiding in combinations formed for the illegal and unwarrantable purpose already noticed.

It is with deep concern that the Governor-General-in-Council feels himself obliged to warn the refractory part of the community of the serious evils, which under the foregoing orders, they are liable to bring upon themselves by a further perseverance in their present seditious conduct. The disposition of the Government to attend to all reasonable applications, and to afford equal protection to all classes of people, is universally acknowledged; but it never can be induced to forego what it has deemed a just and reasonable exercise of its authority in consequence of unlawful combination and tumult.

By order of the Governor-General-in-Council.

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I.A.13. *Government to Acting Magistrate, Benares*

11.1.1811

Sir,

I am directed to acknowledge the receipt of a letter from you dated the 4th instant and to acquaint you that the Hon'ble the Governor-General-in-Council has derived great satisfaction from learning that the spirit of sedition and resistance to public authority was beginning to subside in the city of Benares at the period of your address.

2. In the 4th paragraph of your letter you observe as follows, 'Much dependence however can not at present be placed on these favourable circumstances; for the religious orders of the people, men of rank and respectability, continue unalterable in their resolution, & c'.

3. Clause first, Section 6, Regulation XV, 1810, declared that all religious edifices shall be exempt from the payment of the tax on houses: It may be proper to define more particularly in a future Regulation the import of those terms. But in the meantime, his Lordship-in-Council desires, that in carrying the provisions of the Regulation into effect the greatest latitude may be allowed to that exemption, which the terms of the foregoing clause will reasonably and properly admit. His Lordship-in-Council likewise desires that you will report in concert with the Collector the different descriptions of religious buildings which may be exempted under the rule above mentioned, and the present orders of Government, from the payment of the tax, in order that the necessary explanation on the subject (as already noticed) may be inserted in a future Regulation.

4. The Governor-General-in-Council has observed with great satisfaction the meritorious conduct of Baboo Sheo Narain Singh on the present occasion. You will, accordingly, acquaint him that the Governor-General has been requested to present Baboo Sheo Narain Singh with a Khelaut, as a particular testimony of the approbation by Government of his exertions in supplying the Bazars, and in otherwise aiding in the maintenance of the public tranquility.

5. I am directed to add that the Governor-General-in-Council entirely approves the measures adopted by you on the present emergency; your conduct appearing to his Lordship-in-Council to combine proper firmness with the greatest possible moderation and indulgence towards the misguided people, by whom the present unhappy disturbances have been excited.

I am & c
G. Dowdeswell,
Secretary to Government,
Judicial Department

Council Chamber
January 11, 1811

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I.A.14. *Government to Acting Magistrate, Benares*

11.1.1811

Sir,

In continuation of my letter of the present date, I am directed to acquaint you that in carrying into effect the provisions of Regulation XV, 1810, it is not the intention of Government that the houses of the lowest orders of the people should be subject to the tax established by that Regulation: that is, of those classes, who might be subject to distress from the payment of it, while its produce from the very inconsiderable value of the buildings could not be an object to Government.

2. The Governor-General-in-Council is not at present prepared to determine the precise rent, or commuted annual produce, of the buildings to which the above mentioned exemption should extend; but his Lordship-in-Council has deemed it advisable to apprise you generally of the sentiments entertained by Government on this point. Previously to communicating the present orders to the different classes of people, who may be benefited by their operation, you will naturally consider in what mode it can be done, without compromising the public authority or weakening the sentiments of respect which it is so essential that the community should feel, especially at the present juncture, for the Government. The change of circumstances, which may have already occurred or which may take place, previously to the receipt by you of the present orders of Government, precludes the Governor-General-in-Council from furnishing you with any specific instructions on that point, but his Lordship-in-Council would hope that the people may have shown themselves deserving of the indulgence proposed to be extended to them by the relinquishment of their late seditious and criminal designs, and by a just submission to public authority.

3. You will, of course, communicate the present letter to the Collector for his immediate guidance in fixing the assessment, who will be furnished with correspondent instructions, as soon as circumstances may admit, through the usual channel of the Board of Commissioners.

I am & c
G. Dowdeswell,
Secretary to Government,
Judicial Department

Council Chamber
January 11, 1811

I.A.15. *Government to Collector, Benares*

7.1.1811

Sir,

I am directed by the Right Hon'ble, the Governor-General-in-Council the receipt of a letter from you dated the 2nd instant, and to acquaint you, that orders have been issued to the Acting Magistrate of Benares for enforcing the provisions of Regulation XV, 1810.

The Acting Magistrate has been desired to communicate to you the instructions of Government on this question to which you will accordingly conform.

I am & c
G. Dowdeswell,
Secretary to Government,
Revenue Department

Council Chamber
January 7, 1811

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I.A.16. *Acting Magistrate, Benares to Government*

18.1.1811

Sir,

I lose no time in submitting the enclosed papers for the consideration of Government.

2. In my address of the 8th instant, I had the satisfaction to report, that the agitation among the inhabitants of this city had in considerable degree subsided, and that I confidently expected the combination, formed to resist the orders of Government, would speedily be dissolved; the disposition manifested by the people induced me to entertain that expectation until the 13th instant, when I communicated the resolution of Government not to rescind the Regulation XV, 1810, to the principal native inhabitants of Benares, in the hope that there would be no necessity of resorting to military force to compel the people to submit to it. (copy of the proclamation delivered to them is also enclosed)

3. The day after this resolution was communicated, the people began again to collect together, for the ostensible purpose

of proceeding in a body to present a petition at the presidency. In this state of things I received the Government proclamation, and thinking that it would be of service in reclaiming the people from their unjustifiable proceedings, I proposed to publish it. Major-General Macdonald, however, did not consider himself in a state to afford me the support I might require, and after the sentiments expressed by him at a conference held this morning at Mr. Brooke's, I have deemed it necessary under the instructions of Government to submit to his opinion, although I see no ground for apprehending that the people would resist, by open violence, the direct authority of Government.

4. The reinforcement, which Major-General Macdonald expects from Lucknow, cannot arrive, I am informed, in less than six or eight days. I will endeavour in the meantime to counteract, by all the means in my power, the injury which the public service sustains, under the present circumstances.

5. As long as the people persevere in these unjustifiable proceedings, they are totally undeserving of indulgence, and it is impossible to communicate to them the benevolent intentions of the Government. I have given the necessary information to the Collector for his immediate guidance in fixing the assessment, but I do not conceive it possible, without compromising the authority of Government, officially to communicate it to the public, until the people shall have shown themselves worthy of the consideration proposed to be extended to them, by the relinquishment of their seditious and criminal designs, and by a just submission to public authority.

City of Benares — I have & c
January 18, 1811 — W.W. Bird, Acting Magistrate

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I.A.16 (a) *Major-General Macdonald to Acting Magistrate, Benares.*

12.1.1811

Sir,

I have the honour to acknowledge the receipt, just now, of your letter of this date, enclosing a copy of the letter from the Secretary to Government, Judicial Department, to your address communicating to you the intention of Government, to enforce the collection of the tax upon houses, & c, to concert with me, the arrangement that should be adopted for the suppression of any attempt, that shall be made, to resist your authority, or that of the Collector, which I should be ready, at any time you please to point out, to carry into effect, by a personal conference, if you please, and it will be agreeable and convenient. I will be at Mr. Brooke's house, as if by chance, tomorrow morning, at or before 8 o'clock for the purpose. As several points, on which I want full information, will be necessary to be gone into: ere a proper arrangement can be made, to wit.

The temper of the public mind at present, the disposition of the mob assembled, whether to resist, when the determination of the Government shall be made known, or to break up the unlawful assembly: and again petition Government. What effect, you imagine will be produced, when it shall be known, the Phatuckbunde is to be abolished: if this may, or not, occasion a separation of the inhabitants of the city, affected by the Phatuckbunde, from those of the suburbs, & c, and cause the assembly to break-up; and the people to return to their habitations, and respective occupations. Whether it might not be prudent to try the effort of making this known, previous to the other being declared. This I mention merely as a suggestion. It will be necessary, I should know the descriptions of persons, their names, ranks and influence, who have been the secret movers, in this combination, whom you think should be called to account, and if any of these are amongst the mob; if the Goshains are concerned, what sects and to what extent, as to numbers. If the Rajpoots are with the mob in any number and if you have reason to think, the Rajpoots will join these Goshains and others, when it shall be proclaimed, the tax is to be enforced. Whether or not the Mahrattah, who are fixed inhabitants of the place, are concerned, are any of them with the mob, and of what rank and description. If these people (the fighting castes including Mahommedans) can easily arm themselves: and how soon you imagine they could appear in condition, to make resistance. And if you can say, whether or not those about His Highness Amrut Rao, are disposed to stand quite neuter. Lastly, what aid you think the Rajah of Benares will or can afford in order to enable you to carry into effect the orders of Government.

On the various points herein stated, I should be glad to have a few words in writing.

Benares — I have & c
5 P.M., January 12, 1811 — J. Macdonald, Maj.-General

I.A.16 (b). *Substance of the verbal communication made by Mr. Bird, the Acting Magistrate of the city of Benares, to Major-General Macdonald, commanding the station, during the conference at Mr.Brooke's house on the 13th January 1811*

That the temper of the public mind appeared to continue very unfavourable towards the Government, and that the people both in the Mofusil and in the city, were unanimous in one common effort, to obtain the abolition of the imposts of which they respectively complained. That men of all classes and description, from the highest to the lowest, whether Mahommedans or Hindoos, Jolahirs, Rajpoots and Goshains included, were all of one mind, and engaged by oath to promote the common cause. But it was the opinion of the Acting Magistrate, that they had no preconcerted plan of resistance by open violence, that it was rather their object to provoke the orders of Government to offer violence upon them, in order to make out a case of oppression against the Government, to be presented in the first instance to the Supreme Court of Judicature in Calcutta. That it was, under these circumstances, advisable to avoid even the appearance of measures calculated to produce that effect, but to leave the people entirely to themselves, and in that state, to promulgate the orders of Government without hesitation or delay. That as the people were disarmed, the effect of the orders of Government upon the public mind, would be perceived, in any case, soon enough to call forth the troops, so as to prevent mischief ensuing from an attempt to resist by force of arms, the authority of Government.

The Acting Magistrate also expressed his opinion, that the dependants of His Highness Amrut Rao would certainly stand neuter, and that His Highness himself would be disposed, if called upon, to support the Government, but that no assistance could be expected from the Rajah of Benares.

This communication was committed to writing
by Mr Bird and delivered
to Maj-Gen Macdonald
by Mr Brooke.

W. W Bird
Acting Magistrate

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I.A.16 (c). *At a conference held in at Mr Brooke's house on Friday, the 18th January 1811, between Major-General Macdonald and Mr W.W. Bird, in which Mr Bird proposes to carry into effect tomorrow morning, the Proclamation of Government, under date the 7th instant, in the mode prescribed by Government.*

Major-General Macdonald objects to the immediate execution of the orders of Government, until he shall be better prepared by the arrival of a battalion from the 4th Regiment Native Infantry, unless Mr Bird positively assures the Major-General that the military will not be opposed, and upon his own responsibility calls upon the Major-General immediately and without delay to employ the present force, which the Major-General has. The Major-General informs Mr Bird that his present disposable native force, including four companies of volunteers, does not exceed 500 Firelocks, and His Majesty's 67th Regiment should not, the Major-General thinks, be employed but in the very last extremity. The risk is too great in the Major-General's opinion; as if in event of resistance any blood of Brahmins or of religious orders be split, the consequences might be most serious. The Major-General now expresses his opinion, as he did on a former meeting; and that as the people have since changed their ground with the apparent intention of moving away, they should be allowed to disperse of themselves.

Mr Bird adverting to the expression made use of by Major-General Macdonald, as to the apparent intention of the people to move away, begs leave to remark, that those words may bear a meaning of moving away to their own houses, which in fact would be obeying these orders of Government before promulgation. If such be the opinion of the Major-General, Mr Bird is sorry he cannot accede to it. Mr Bird has every reason to suppose that these persons have moved away from their original ground with the intention of going in a body to Calcutta. Mr Bird further can only repeat the opinion recorded in his official letter to Major-General Macdonald, under date the 16th instant (which was an error of writing for the 17th), as to the part which may be taken by the Rajpoots and the other fighting tribes, on carrying into effect the orders of Government. Still after what Major-General Macdonald has expressed, Mr Bird does not think himself authorised to act upon his own opinion and consequently shall not publish the Government Proclamation.

In reply, Major-General Macdonald observes that by the people moving away, he did not mean to declare whither they were moving, whether to their houses or elsewhere the Major-General cannot pretend to say.

J. Macdonald, Major-General
W.W. Bird. Acting Magistrate

Committed to writing and signed in our presence,

W.A. Brooke,
J.D. Erskine,
W.O. Salmon.

After signing the above, the Major-General adds, that if under any change of circumstances, Mr Bird should be of opinion that the present military force which the General has, should be immediately called for and employed, and Mr Bird should in consequence so call upon the Major-General to that effect, Major-General Macdonald will forthwith comply.

J. Macdonald, Major-General
(*witnessed as above*)

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I.A.17. *Acting Magistrate, Benares to Government*

20.1.1811

Sir,

Very little alteration has taken place in the state of affairs at this city since the date of my last letter forwarded by express. The people still continue collected as they were, and unless their perseverance shall yield to fatigue and disappointment, I see but little reason to hope for any very favourable change, until circumstances enable me to carry into effect the orders of Government.

2. Soon after the resolution of Government not to rescind Regulation XV, 1810, was promulgated, inflammatory papers of the most objectionable tendency, appeared placarded about the streets. I have the honour to enclose 7 copies of two of these papers to be laid before the Government, I have offered a reward of Rs.500 for every man on whom such a paper may be found, and hope that this reward will not be thought more considerable than the nature and exigency of the case required.

3. It can easily be understood that in the present state of

things, little or no progress is made in the assessment, and that it becomes every day an object of greater importance to disperse the people, and compel them to put an end to their seditious and unwarrantable proceedings. As Major-General Macdonald considers an additional force indispensable for that purpose, I am most anxious it should arrive; that I may carry into effect the orders of Government. I can not but feel very forcibly, that such a state of things being permitted to continue in defiance of public authority, has already weakened, and weakens daily still more and more, those sentiments of respect, which it is so essential that the community should entertain for the Government of the country.

City of Benares I have & c
January 20, 1811 W.W. Bird, Acting Magistrate

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I.A.18. *Acting Magistrate, Benares to Government*

28.1.1811

Sir,

From my letters under date the 18th and 20th instant the Right Hon'ble, the Governor-General-in-Council will have become acquainted with the circumstances which prevented me from carrying into effect the orders of Government, and the very critical situation in which these circumstances placed me.

2. The authority of Government was openly disregarded and insulted, the whole population of the city was in a state of acknowledged disobedience and insubordination, and the public mind was agitated by the proceedings of a mob, collected for the avowed purpose of resisting the orders of Government, and of deliberating on the best mode of extorting compliance with their demands. They expected to extort this compliance by threatening to proceed in a body to Calcutta, through all the cities subject in common with themselves to the grievance which they had assembled to resist, and in case their threat should not produce the effect which was expected, they resolved actually to carry it into operation.

3. As soon as the people perceived that the threat of proceeding to Calcutta would never extort the object intended by it, they began to concert measures to undertake the journey. They determined that the proprietor of every house in the city should

either go himself, or send a person to represent him, or contribute, in proportion to his means to defray the expenses of those who might be disposed to go.

4. The religious orders exerted all their influence over the prejudices and superstitions of the people to persuade them to conform to this determination, but their efforts were unsuccessful. When it came to the point, few were found disposed to undertake a journey on which they were likely to be obstructed: nor were they willing to contribute to promote the scheme, the object of which, they were fully convinced, would never be accomplished.

5. This disappointment occasioned among them considerable embarrassment, and they resolved in consequence to try the effect of another application to public authority. They accordingly presented a petition (a copy and translation of which is enclosed) to the judges of the provincial court, in the hope of obtaining from the interposition of that court, some resolution in their favour.

6. The total rejection of this petition multiplied their difficulties, and induced several sensible and reflecting persons to withdraw their support from the undertaking. The people in general began to perceive, that they were involved in difficulties from which they could not extricate themselves with credit. They were now sensible that Government would never yield to clamour and unlawful combinations; but they were still kept together by a consciousness of their offences, by the fear of the punishment which awaited them, and by the dread of the obloquy they must incur, by relinquishing the object for which they had so unsuccessfully contended.

7. This favourable state of things was greatly improved by the zeal and activity of Sieud Akber Allee Khan, that old and faithful public servant, who with the assistance of Moulvee Ubdool Kadir Khan, the agent between Mr. Brooke and his Highness Umrut Rao, exerted himself most successfully in counteracting the projects of the mob, and in adding to their embarrassments. At length, the people, perplexed and irresolute, began to apprehend that as the Government were regularly made acquainted with all their proceedings, their conduct so far from obtaining the object of their demands, would ultimately draw upon themselves the most serious evils.

8. Full of these apprehensions, they sought only a plea for reconciling to themselves the necessity of returning to obedience, and with this view, they informed me on the morning of the 23rd

instant that they were willing to disperse, provided I came to them in person to request it. But after the public affronts which they had repeatedly offered to the authority of Government, I did not think it would be proper to grant them this indulgence, and I accordingly declined complying with their request. At the same time, a plan was requested to me by Sieud Akber Alee Khan, which promised to be equally successful, and of which circumstances soon enabled me to avail myself.

9. Mr. Brooke, who immediately on the receipt of my letter had returned to his station, and on his arrival, exerted himself to the utmost for the support of my authority, by exercising his influence to induce the native inhabitants of rank to aid in suppressing the disturbance, prevailed with the Rajah of Benares to return from his country residence to the city, and the Rajah appeared to be the most proper instrument of inspiring the people with a due sense of their duty, and of the evils to which they would be exposed by further perseverance in their misconduct.

10. This was very successfully managed by the agency of the two persons above mentioned, Sieud Akber Allee Khan, and Ubdool Kadir Khan. The people were taught to look to the intercession of the Rajah for forgiveness, and the Rajah, whose emulation had been excited by the distinction conferred upon Baboo Sheo Narain Singh, easily understood that by exerting himself on this occasion he would augment his claim upon the esteem and confidence of Government. The matter being thus arranged, the Raja conducted himself in a manner deserving the highest approbation. He proceeded with all the distinctions of his rank to the place where the people were collected, the mob soon listened to his exhortations, and returned to their homes, and the Rajah, selecting from among them, fifty of the persons principally concerned with the disturbance, brought them to me to acknowledge their offences; while the Raja himself interceded in their behalf and solicited me to endeavour to procure both for themselves and for the subject of their complaint, the indulgence of the Government.

11. Thus tranquility has been completely restored, and Regulation XV, 1810, can be carried into effect without any further opposition. The tax imposed by it however on the houses of this city, continues nevertheless to be most objectionable to the feelings of its inhabitants, who can not be dissuaded from considering it in the light of an encroachment on their privileges. With such an impression of the nature of the tax, all that delicacy for the feelings of the people, which the Collector prudently pays to them, must still continue to be observed in the mode of

assessing and collecting it. I have reason to believe that it would tend in some degree to reconcile them to the measure, if the expense of the Phatuckbundee instead of being defrayed from the general resources of Government shall be provided for by a remission in the assessment of the tax on houses, equal to the amount of the contribution which the proprietors are subjected to for the Phatuckbundee. The inhabitants are accustomed to the latter and contribute without reluctance to the support of an establishment, by which themselves and their property are protected. If Government consent to this alteration, it would not only increase the public revenue, but be received with gratitude by the people, who as soon as it is proper to acquaint them with the exemption to be extended to the poor, and to certain classes of the religious orders, will I trust be sensible of the indulgence of the Government.

12. It remains to consider the course which it will be expedient to pursue towards those persons by whom the late seditious proceedings have been excited. There is no doubt that the conduct of many of them has been highly criminal, and deserves the most exemplary punishment. But the hearts of every man in this city are united with them, and there are very few, who have not in some way or other, afforded them encouragement and assistance. If they are brought to trial, it will not tend to remove the present discontents, whereas a proclamation of general pardon would fill all classes of people with gratitude to Government for its lenity, and leave a lasting impression of the tenderness which it is disposed to extend, even under the present circumstances, to its subjects. Much indulgence is due to them for their late unconditional submission, for abstaining from every act of violent resistance, under the state into which their feelings had betrayed them, and for throwing themselves at last, conscious as they feel of their offences, upon the mercy of those whom they had offended. Enough perhaps has already been done for the support of the public authority and if the principal offenders are merely required to enter into a recognizance, engaging to take no part again in tumultuary meetings and proceedings, it will be sufficient, I am of opinion, to prevent the recurrence of similar disturbances.

13. I think it my duty to solicit his Lordship in Council, to bestow some mark of approbation on the conduct of Sieud Akber Allee Khan, and Moulvee Ubdool Kadir Khan, whose conduct on this emergency has proved them in the highest degree zealous for the public service. I beg also to make favourable mention of

Baboo Jumna Das, the principal native merchant in Benares, who from the time that the orders of Government were promulgated, laudably exerted himself to the utmost of his power, to enforce obedience to its authority.

14. I can not close this address without publicly acknowledging to my assistant Mr Glyn, the great support I have received upon this occasion from his diligence and exertions.

City of Benares — I have the honour to be & c
28th January 1811 — W.W. Bird, Acting Magistrate

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I.A.18 (a). *Order of the Court of Appeal and Circuit on Petition*

ORDER

In the opinion of the judges of the Court this petition is not cognisable by the Court of Appeal or Court of Circuit. Besides it appears that this petition has been presented on the part of people who are determinately engaged in mobs and assemblies contrary to the Regulations, which is highly improper; also the style and contents of this petition are disrespectful which is an additional reason for not allowing of it.

W. A. Brooke, Senior Judge
J. D. Erskine, Acting 3rd Judge
Judges of the Court of Appeal
and Circuit for the Division of Benares

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I.A.19. *Government to Acting Magistrate, Benares*

4.2.1811

The Acting Magistrate of Benares

Sir,

I am directed by the Right Hon'ble the Governor General in Council to acknowledge the receipt of your letters dated the 8th, 18th, 20th and 28th ultimo with their enclosures.

2. 8th, 18th and 20th ultimo require no particular orders.

3. 28th ultimo. The Governor General in Council has derived great satisfaction from learning that the people who had

assembled with the view of defeating the object of Regulation XV, 1810 had dispersed and submitted to public authority.

4. The Governor General in Council approves generally the course pursued by you with a view to the accomplishment of the important object.

5. His Lordship in Council has observed with the highest satisfaction the proofs given by the Rajah of Benares on the present occasion, of his zeal for the public interests, and of his solicitude for the prevention of those evils in which the misguided people of the city of Benares might have involved themselves by a longer perseverance in their seditious conduct and resistance to the authority of Government. These sentiments will be expressed in a letter from the Governor General to the Rajah accompanied with a Khelaut as a mark of the high sense which Government entertains of his meritorious conduct.

6. The exertions of Syed Akber Allee Khan, Moulvee Ubdool Kadir Khan and Baboo Jumna Das, for the re-establishment of the public tranquility, have likewise been noted with the highest approbation by the Governor General in Council. Khelauts will accordingly be presented by the Governor General to those persons respectively in testimony of the sense which Government entertains of their services on the present occasion.

7. The Governor General in Council does not discern any substantial grounds for granting a general pardon to the people of Benares for their late unwarrantable and seditious proceedings. On the contrary his Lordship in Council is of opinion, that public justice and obvious expediency of preventing by seasonal examples the recurrence of such evils in future, require that the persons, who have been chiefly instrumental in exciting the late disturbances, should be regularly brought to trial for that offense. The Governor General in Council is at the same time of opinion that the prosecutions need not be numerous. You will accordingly report the names of the individuals against whom you would propose in conformity to the sentiments here expressed, that prosecutions should be instituted, together with the grounds on which you may consider the persons so selected as the fittest objects for example.

8. His Lordship in Council is not aware of any objection to the modification proposed by you to be made of the orders of Government of the 5th ultimo, respecting the Phatuckbundee. The Board of Commissioners will be accordingly desired to instruct the Collector of Benares to carry your suggestions on

that point into effect, or to report, should any objections occur to the Board to the adoption of them.

9. The Governor General in Council has not failed to notice the favourable testimony borne by you to the diligence and exertions of your Assistant, Mr Glyn.

10. His Lordship in Council likewise observed with the highest satisfaction and approbation the prudence, judgement and firmness manifested by yourself in the discharge of the important duty imposed upon by the late occurrences at the city of Benares.

I am & c
G. Dowdeswell
Secretary to Government,
Judicial Department

Council Chambers
February 4, 1811

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I.A.20. *The Acting Magistrate of Benares to Government*

7.2.1811

G. Dowdeswell Esq.,
Secretary to Government, Judicial Department
Fort William

Sir,

I have the honour to enclose a petition, which has been presented to me by the Rajah of Benares in the name of the inhabitants of the city, to be submitted to the Right Hon'ble the Governor General in Council, for his consideration and orders.

2. This petition is intended as an ultimate appeal to Government, against the provisions of Regulation XV, 1810. The petitions presented in the first instance to the civil authorities at this station, having, as stated by the petitioners themselves, been rejected, they present themselves at last before his Lordship in Council; and although the petitioners are fully aware that their case has already received the decision of his Lordship, yet it would be imprudent at the present moment to refuse forwarding the petition, and encounter, by such refusal, that general discontent and irritation, which would naturally be excited by it.

3. As the whole of the case now submitted has already been fully before the Government, it would be superfluous in me to make any particular observations upon the contents of the

petition. I feel it to be my duty however, to state generally for the information of the Government, what I believe to be the real sentiments of the people. I believe the objection which they entertain against the measure in question, is pointed exclusively at the nature and principle of the tax, and not in the least at the rate of assessment by which it will be realised. The inhabitants of this city appear to consider it an innovation, which, according to the laws and usages of the country, they imagine no government has the right to introduce; and that unless they protest against it, the tax will speedily be increased, and the principle of it extended so as to affect every thing which they call their own. Under the circumstances, I fear, they will not easily reconcile themselves to the measure. To declare the assessment permanently limited to the rate established by the Regulation, would of course be satisfactory to them; yet the general repugnance is to the tax itself, and while the inhabitants at large profess themselves disposed to submit to any tax, however oppressive, if established according to the usages of the country, they appear to think it a hardship to be compelled to contribute a sum, however inconsiderable, in any mode to which they are unaccustomed.

4. I have refrained from making any observation to the petitioners on the contents of their petition, for since it is ostensibly an appeal to superior authority, it would be improper in me to anticipate the sentiments of Government, by attempting to explain away the errors into which the petitioners have, perhaps intentionally, fallen. Upon the same principle, I have abstained from communicating to the public, the exemption proposed to be extended to particular classes by the orders of Government under date the 11th ultimo. As the people have returned unconditionally to obedience every act of indulgence which the Government may determine to extend to them, would perhaps be better adopted to produce the effect proposed by it, if understood to be granted to the petitioners by the Government itself, in consequence of their representations.

5. I have only to add that the inhabitants of this city have continued since the date of my last address very peaceable and quiet, and that I believe they have every disposition at present to remain so.

City of Benares
February 7, 1811

I have & c
W.W Bird, Acting Magistrate

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I.A.21. *Government to the Acting Magistrate, Benares*

16.2.1811

The Acting Magistrate of the City of Benares

Sir,

I am directed by the Right Hon'ble the Governor-General-in-Council to acknowledge the receipt of a letter from you dated the 7th instant, enclosing a copy of a petition from the inhabitants of the city of Benares.

2. The Governor General in Council observes that you have acted with perfect propriety in forwarding the petition to Government; at the same time his Lordship in Council does not discern in the circumstances stated by you any substantial ground for the step taken by you of suspending the communication of the intended modifications of the tax to the present period. At all events he desires that the alterations proposed to be adopted with respect to the rules established by Regulation XV, 1810 may be made known to the community on the receipt of this letter.

3. The details of the arrangements connected with the Phatuckbundee and with the exemption from the tax proposed to be granted in favour of the religious orders and of the indigent classes of the people will naturally engage the attention of the Collector under the directions of the Board of Commissioners, to whom the necessary communication has been made of the resolution passed by Government on those points.

4. After the foregoing remarks and orders it can scarcely be necessary to add, that the Governor General in Council does not think proper to comply with the application of the inhabitants of Benares to any greater extent than will be done by the operation of the orders above noticed, which his Lordship in Council is of opinion should obviate all further complaint or discontent with respect to the tax in question.

I am & c
G. Dowdeswell,
Secretary to Government,
Judicial Department

February 16, 1811
Council Chamber

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I.A.22. *Magistrate of Benares to Government*

23.2.1811

G. Dowdeswell Esq.,
Secretary to Government, Judicial Department
Fort William

Sir,

I was favoured yesterday morning with the orders of Government of the 16th instant on the petition submitted by the late Acting Magistrate on the 7th instant from the inhabitants of the city of Benares.

2. The Rajah of Benares attended me this morning pursuant to notice, accompanied by several of the principal inhabitants of the city, for the purpose of receiving from me a communication of the orders in question; and also of the alterations proposed to be adopted with respect to the rules established by Regulation XV, 1810 and the modification of the former orders of Government of the 5th ultimo regarding the Phautuckbundee.

3. The resolution of Government on the foregoing points were made known to them by me in the presence of the Assistant Magistrate in the words of the enclosed proclamation, which was afterwards published in the city for general information. English translation of the proclamation is herewith submitted.

4. The measure adopted by Mr. Bird of withholding notice of the intended modification of the house tax at a period when the people were in a stage of open and lawless sedition has afforded me an opportunity of making the communication known to them in a mode less liable to objection, and more likely to be attended with benefit, than any which could then have been devised. The resolution in favour of the religious orders, and lower classes of the people, which, at the time the inhabitants at large were petitioning the Government for a total repeal of the tax, would have been treated certainly with indifference, and perhaps with contempt and scorn; will since the prayer of their petition has been peremptorily rejected, be at least received as an act of favour and indulgence as far as it goes, and tend to a certain extent to restrain them from expressing those undisguised sentiments of discontent with the Government, and disregard for all public authority, which they have hitherto so openly avowed.

5. I can as yet form no decisive opinion on the general effect which the communication of today may produce in the

minds of the people; but the exemption in favour of the religious orders was received by the persons who waited on me this morning with much apparent satisfaction.

Magistrate's Office	I have & c
City of Benares	Edward Watson
February 23, 1811	Magistrate

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I.A.22 (a). *Proclamation*

The petition of the inhabitants of the city of Benares regarding the tax on houses presented by Rajah Oodit Naraine Singh Behadre to Mr. W. W. Bird, the late Acting Magistrate, having been submitted by him to the Right Hon'ble the Governor General in Council in a letter dated the 7th February 1811, the orders of Government have been since notified thereon that the Governor General in Council does not think proper to comply with the application of the inhabitants of Benares to a greater extent than will be done by the operation of the following indulgences:

First, Clause 1st section 6 Regulation XV, 1810 declares that all religious edifices shall be exempt from the payment of the tax on houses. The import of those terms will be defined more particularly in a future regulation. In the meantime the Governor General in Council desires that the Collector in carrying the provisions of the Regulation into effect do allow the greatest latitude to that exemption which the terms of the foregoing clause will reasonably and properly admit, and that the Magistrate do report in concert with the Collector, the different descriptions of religious buildings which may be exempted under the rule above mentioned and the present orders of Government from the payment of the tax in order that the necessary explanation on the subject as already noticed may be inserted in a future regulation.

Second, it is not the intention of Government that the houses of the lower orders of the people who would be subject to distress from the payment of the tax, while its produce would be so inconsiderable as not to be an object of Government, should be liable to the tax established by Regulation XV, 1810.

Third, on January 5, 1811 it was resolved that the inhabitants of Benares should be relieved from the contribution on account of the Phatuckbundee and that the pay of the chokeydars and repair of the gateways should be defrayed from the public treasury which resolution was accordingly made known in the proclamation of the 13th of that month. It was afterwards suggested to Government that if the expense of the Phatuckbundee instead of being defrayed from the public treasury, was provided for by a remission in the assessment of the tax on houses equal to the amount of the Phatuckbundee contribution leaving the proprietor of each house to pay of his own accord his quota of the contribution through the Mohullahdar as heretofore, it would be an indulgence to the people. An order was received in reply that Government were not aware of any objection to the modification proposed to be made in the orders of the 5th of January respecting the Phatuckbundee, and that the Board of Commissioners would be desired to instruct the Collector to carry the foregoing suggestion into effect or to report should any objection occur to the Board to the adoption of them.

It has been since notified in the orders of Government of February 16, that the resolution passed by Government in regard to the Phatuckbundee and the exemption from the tax in favour of the religious orders and the indigent classes of the people, have been communicated to the Board of Commissioners and that the details of those arrangements will be conducted by the Collector under the directions of the Board.

That no ground now remains for the complaint or discontent. (True translation)

Edward Watson,
Magistrate

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I.A.23. *Late Acting Magistrate to Government*

23.2.1811

G. Dowdeswell Esq.,
Secretary to Government, Judicial Department
Fort William

Sir,

It has been very painful to me to observe in the orders of Government dated the 16th instant, that his Lordship in Council does not discern in the circumstances stated by me any substantial grounds for the step taken by me of suspending the communication of the intended modification of the tax to the present period.

2. I am induced to hope that I have been so unfortunate as to draw upon myself this remark solely by the imperfect expression of the sentiments contained in the 4th paragraph of my letter addressed to you on the 7th instant. I therefore beg leave to submit the following explanation.

3. It was my intention to express in my letter addressed to you on the 7th instant, that the intended modification of the tax could not I imagined be communicated, until the answer of Government should be received on the petition then transmitted, without leading the people to believe that the modification in question was the result of their illegal and tumultuary proceedings, rather than a spontaneous act of favour on the part of the Government in consequence of their submission. It becomes then a question of policy whether it would not be most advisable to suspend the communication of the resolution of Government in their favour, until a final order could be received on their ultimate appeal, the only representation which had been made in a peaceable and respectable manner. I availed myself therefore of the discretion vested in me by the orders of Government under date the 11th ultimo, to defer the communication in question, as the best and indeed only mode of upholding those sentiments of respect, which it appeared so essential that the community should entertain for the public authority.

4. Feeling most anxious to remove every doubt respecting the principles by which my conduct has been governed on this occasion, I have considered it incumbent on me to make the foregoing explanations. I deeply lament that any step taken by me should deserve to be excepted from that general approbation, with which my measures on this emergency have been honoured by the Governor General in Council.

I have & c
W.W. Bird,
Late Acting Magistrate

City of Benares
February 23, 1811

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I.A.24. *Government to Magistrate, Benares*

6.3.1811

The Magistrate of the City of Benares

Sir,

I am directed by the Right Hon'ble the Governor General in Council to acknowledge the receipt of your letter of the 23rd ultimo and likewise a letter from the Assistant Magistrate of the same date.

2. The communications contained in your own letter do not appear to require any remarks or orders.

3. The Governor General in Council is perfectly satisfied that Mr. Bird was actuated by the best intentions in suspending the communication of the modifications adopted in the house tax. It was never indeed intended in the slightest degree to impeach the purity of his intentions with respect to that question; any further expression of the sentiments of Government on the subject is at present clearly unnecessary.

I am & c
G. Dowdeswell,
Secretary to Government,
Judicial Department

Council Chamber
the 6th March, 1811

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I.A.25. *Report of Collector of Benares on the operation of the House Tax*

28.12.1811

(Extract)

...At an early period I directed my native officers to tender to all the householders or tenants whose houses had already been assessed, a note purporting the computed rate of rent of each house and the rate of tax fixed thereby and I issued at the same time a proclamation directing all persons who had objections of any nature to offer to the rates of rent or tax mentioned in such note to attend and make known the same that every necessary enquiry might be made and all consistent redress afforded. In the above mentioned proclamation, I fixed a day in the week for specially bearing such cases and repaired to the city for that purpose. Neither would any householder or tenant receive such note nor did any one attend to present petition or offer objection. The most in sullen silence permitted the assessors to proceed as they pleased rigidly observing the rule to give no information or to answer any questions respecting the tax; in determination that they would not in any wise be consenting to the measure, that the assessors might assess and the executive officers of the tax might realise by distraint of personal or real property; they could not resist but they would not concur. Some few, more contumacious or violent than the rest impeded and attempted to resist the officers of the tax but owing to the admirable conduct and caution of Mohummud Tukkee Khan to whom I committed the charge, frays and riots were avoided though no assistance was afforded by the police officers and the assessment gradually went on.

A few exceptions were found in some of the principal inhabitants of the city either in the immediate employ of Government or in some degree connected with the concerns of Government or otherwise individually interested in manifesting their obedience and loyalty. These persons waited on me and delivered in a statement of their houses and promises and the actual or computed rent of the same and acknowledged the assessment of tax.

The statement of assessment includes all descriptions of houses excepting such as by Regulation above mentioned or the explicit orders of Government are liable to be exempted. But there are many edifices, tenements & c upon which it is doubtful whether the tax should operate.

...In the present state of things I am not aware that it is necessary to enter more into detail as to the mode of collecting the tax. It is doubtful whether Government will enforce it and from what I have seen of difficulties attending the measure, the little benefit likely to arise to Government from it, and the insuperable reluctance of more than half a million of persons, I submit with all due deference that whilst the abrogation would be gratefully acknowledged by the people, it would be a measure of policy as well as of favour on the part of the sovereign Government to have been pleased to direct that the progress of assessment should be stayed at those stations at which commotions may not exist at the period of the receipt of their orders. At this time commotions certainly do not exist but neither I or I fancy, the Magistrate can presume to say that they will not arise if the operation of the tax shall be again set on foot. I have already noticed the sullen silence with which the householders viewed the census taken and their determination neither to acknowledge or deny the assessment and I should most strenuously urge as an indispensable measure of precaution, that no collection be attempted without the presence of a much larger military force than is now at the station.

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B. EVENTS AT PATNA

I.B.1. *Acting Magistrate of Patna to Government*

2.1.1811

Sir,

I have the honour to forward twelve petitions which have been presented to me by the inhabitants of the city of Patna praying for a relief from the house tax ordered to be levied under Regulation XV, 1810 and request that you will lay them before the hon'ble the Governor General in Council for his consideration and orders.

Patna I have & c
2 January 1811 R.R. Gardiner, Acting Magistrate

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I.B.2. *Government to Acting Magistrate, Patna*

8.1.1811

Sir,

I am directed by the Governor General in Council to acknowledge the receipt of your letter of the 2nd instant, enclosing petitions from the inhabitants of the city of Patna respecting the house tax established by Regulation XV, 1810.

2. The Governor General in Council having recently had occasion to consider very maturely similar petitions from the inhabitants of Benares, I am directed to acquaint you that it has not been deemed advisable to rescind the above mentioned Regulation, and that orders have been issued for carrying the

provisions of it into effect at that city. Accordingly his Lordship in Council has judged it expedient that you and the Acting Collector should be put in possession of the above mentioned information without delay. The time and mode of communicating this resolution to the petitioners or the native part of the community are left however for your discretion, for the guidance of which I am directed to observe that it is deemed highly desirable to avoid as far as possible, giving occasion to general irritation, or to keep back by temperate and prudent management any disposition that may exist to form combinations or to adopt measures of open opposition to the tax at Patna, while the discussion is depending at Benares, and in conformity with those views it will of course be proper to discountenance by all gentle and conciliatory means, meetings of the different classes of the people for the purpose of preparing or presenting petitions against the Regulation.

3. The Governor General in Council trusts that the foregoing orders, combined with your own discretion, will prevent the necessity of adopting any further measures for the enforcement of the Regulation to which this letter refers, or supporting the authority of Government and its officers. Should any tumultuary meetings however take place, or illegal cabals be formed for the purpose of resisting the operation of the rules respecting the house tax (as has unhappily been too much the case at Benares) the Governor-General-in-Council desires that you will report the circumstances without delay to Government; employing at the same time the means, which you possess under the general powers vested in you for the maintenance of the public tranquility; but with the least possible degree of rigour or severity, which the nature and circumstances of the case will permit.

I am & c
G. Dowdeswell,
Secretary to Government,
Judicial Department

Council Chamber
the 8th January 1811

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C. EVENTS AT SARAN

I.C.1. *Acting Magistrate of Sarun to Government*

9.1.1811

Sir,

I request you to acquaint the Right Hon'ble the Governor General in Council that the first intelligence of the house tax, which is in the highest degree unpopular, occasioned a great ferment in the minds of the inhabitants of this place, who presented to me a petition, which I enclose together with a translation of it.

2. When the Collector deputed assessors to arrange the assessment a still greater degree of alarm was created; and notwithstanding all I could do, all the shops of every description were actually shut up, and there was every indication of some very serious disturbance taking place.

3. As there is no military force at this place, and I was apprehensive of acts derogatory to the authority of Government being committed, I was induced to request the Collector to suspend the arrangement or the assessment till I could receive instructions from Government.

4. I trust that what I have done will meet with the approbation of Government, as I have acted to the best of my judgement.

Zillah of Sarun
the 9th January 1811

I have & c
H. Douglas, Acting Magistrate

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I.C.2. *Government to Acting Magistrate, Saran*

18.1.1811

Sir,

I am directed by the Right Hon'ble the Governor General-in-Council to acknowledge the receipt of your letter of the 9th instant enclosing a petition from the inhabitants of Sarun respecting the house tax.

2. The Governor General in Council having lately had under his consideration the provisions of Regulation XV, 1810, desires that no encouragement may be given to the inhabitants of Sarun to expect any general relinquishment of the tax established by that Regulation. It having been determined however to adopt certain modifications of the existing rules in favour of the poorer classes of natives and of mendicants and devotees, I am directed to transmit to you the enclosed copy of a letter which has been written on the subject to the Board of Revenue which you are desired to communicate to the Collector for his immediate guidance in fixing the assessment.

3. The Governor General in Council is unwilling to believe that the inhabitants of Sarun will attempt to offer any open resistance to the establishment of the tax, especially with the restriction, to which the operation of the tax will be subject under the orders above mentioned. It is likewise naturally the wish of his Lordship in Council that all gentle and conciliatory means should be employed to reclaim the people from any factious and illegal attempts to resist the authority of Government. Should circumstances however render it actually necessary, you will of course apply to the officer commanding the troops at Dinapore for such a military force as may be requisite to support the public officers in giving effect to the Regulation and orders of Government.

I am & c
G. Dowdeswell
Secretary to Government,
Judicial Department

Council Chamber
the 18th January 1811

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D. EVENTS AT MOORSHEDABAD

I.D.1. *Acting Magistrate of Moorshedabad to Government*

25.2.1811

G. Dowdeswell Esq.,
Secretary to Government,
Judicial Department,
Fort William

Sir,

It is my duty to report for the information of the Right Hon'ble the Governor-General-in-Council, that the arrangements made for the collection of the house tax recently enacted, have produced serious discontent in the city, and as they approach their completion, disturbances may be apprehended.

Rumours of a combination among the principal merchants to avoid, rather than oppose the tax, by withdrawing from their houses, reached me some days ago. The plan was carried into execution by some of the leading men, and by more of inferior note, but I am happy to add, that I have prevailed on them to return to their houses.

Enclosed I have the honour to transmit two petitions presented to me on the subject: the Persian one, which is accompanied by a translation, was presented to me on the 21st instant, and purports to be generally on the part of the inhabitants of the city. The Bengalee one signed by the inhabitants of Jeengunj (not legible in original) and its environs, was presented to me yesterday, and being of the same tenor with the former does not require translation.

In consequence of a sudden rise in the price of grain, for which no cause could be assigned, in the hope of obtaining information on the subject, I directed some of the principal mahajuns to attend me. They stated that the town duties and the alarm caused by the house tax, prevented the importation of grain into the city, and delivered into my hands the Persian petition, with a request that I would transmit it for the consideration of his lordship in council.

As I considered the petition to be worded in very improper language, I hesitated to comply, stated to them that the town duties which had existed for eight months past, and the house tax which had not yet been levied, could not be given as reasons for the high price of grain, which was so much complained of, notified to them the powers with which I was vested to prevent extortion on the part of the officers both of the Collectors of Customs and of Revenue, and assured them of my readiness to exercise those powers, whenever occasion might call for them.

They left me on that day with a request, that I would summon all the principal mahajuns, when they would concert with me, what measures could be adopted.

A considerable number accordingly attended me yesterday, and added the Bengalee petition to the Persian one previously presented. Finding that they more urgently required its transmission, and that the disposition to leave the city was gaining ground, I have deemed it my duty, objectionable as the language is, to forward it for the order of the Right Hon'ble the Governor-General-in-Council. In return for this concession, these mahajuns who had taken up their residence in the fields, promised to return to their homes, and they all agreed to use every exertion in their power to lower the price of grain.

The discontent caused by the house tax is, I am convinced to add, very deep and very general, for it extends over all ranks and descriptions of people. In the event therefore of its breaking out into a ferment, I have to solicit his lordship's instructions for my guidance.

I have & c

City of Moorshedabad
the 25th February 1811

R. Turner,
Acting Magistrate

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I.D.1 (a) *Petition of the inhabitants of the city of Murshedabad*

21.2.1811

Extract

By the blessing of God the English Gentlemen know, that no king of the earth has oppressed his subjects, and the Almighty preserves his creatures from harm...for some years it has been our unhappy fate to suffer both from affliction and oppression. First, from the prevalence of sickness for several successive years, the city has been depopulated, so much so, that not one half of the inhabitants remain...The oppression of the Town

Duties and Customs is so great, that property of the value of 100 Rs. can not be purchased for 200, the rate of duty is increased twofold and even fourfold, and if any one wishes to remove property from the city to its environs, he can not do it without the payment of a fresh duty...Fourth, order has been passed for levying a tax on houses and shops, which is a new oppression...the order of the Government has in truth struck us like a destructive blast...

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I.D.2. *Government to Acting Magistrate, Moorshedabad*

2.3.1811

The Acting Magistrate of Moorshedabad

Sir,

I am directed by the Right Hon'ble the Governor-General-in-Council to acknowledge the receipt of a letter from you dated the 25th ultimo together with the papers mentioned to accompany it.

2. On the 11th January last, the Governor-General-in-Council was pleased to authorise the adoption of certain alterations in the rules established for the collection of the tax on houses, calculated to afford relief to the religious orders and to the most indigent classes of the people. Those orders his lordship-in-council concludes have been communicated to the Collector of Moorshedabad, in common with the other collectors by the Board of Revenue; for your immediate instruction however, I am directed to transmit to you the enclosed copy of my letter to the Board on the subject.

3. Exclusive of the modifications above noticed, the Governor-General-in-Council on the fullest consideration of the subject, does not deem it advisable to rescind or otherwise alter the provisions contained in Regulation XV, 1810. It consequently only remains to communicate to you the sentiments of Government to the course which should be observed in carrying those provisions into effect.

4. The Governor-General-in-Council is unwilling to believe that the inhabitants of the city of Moorshedabad will persevere in their attempts to oppose the establishment of the tax, especially with the restrictions to which its operations will be

subject under the orders above noticed. It is likewise naturally the wish of Government that all gentle and conciliatory means should be employed, both by yourself and the Superintendent of the Nizamut affairs to reclaim the people from all factious and illegal designs of that nature, so far as these means can be used without compromising the public authority or endangering the peace of the city. Should the inhabitants however proceed, contrary to these reasonable expectations to offer any open resistance to the officers employed by the Collector in adjusting the tax, or to those who may be commissioned by you to support them in the performance of that duty, no alternative remains but that you should apply to the officer commanding the troops at Berhampore for such aid as may be required to enforce the Regulations and orders of Government.

I am & c
G. Dowdeswell,
Secretary to Government,
Judicial Department

Council Chamber
the 2nd March 1811

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E. EVENTS AT BHAGALPUR

I.E.1. *Board of Revenue to His Excellency, Lt. General George Hewett, Vice-President-in-Council, Fort William*

9.10.1811

Hon'ble Sir,

We lose no time in transmitting for the orders of your Excellency in Council a copy of a letter which we have received from the Collector of Bhaugulpore, reporting that the Magistrate of that district has issued a precept to him directing the collection of the house tax to be postponed until this tax should have been collected in the city of Moorshedabad, or in some other city or town.

2. The orders of the Magistrate appear to us, not only inconsistent with the Regulations, but to be in the last degree injudicious and imprudent. The existing rules do not invest the Magistrate with any control in regard to the collection of the tax; and the circumstances of the case do not appear to us, to have

required his special interference. The terms of his order were also, according to our apprehension calculated to promote a combination, between the inhabitants of Bhaugulpore and the inhabitants of the other towns and cities.

We have & c

Revenue Board
the 9th October 1811

G. Dowdeswell
C. Buller

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I.E.2. *Sir F. Hamilton, Collector of Bhaugulpore to Richard Rocke Esq, President and Members of the Board of Revenue, Fort William*

2.10.1811

Gentlemen,

In obedience to the orders contained in your secretary's letter of the 14th August last which I received on the 18th ultimo, I issued the necessary public notification (copy of which accompanies) that the collection of the house tax would immediately take place commencing from the first day of the current Bengal year. A copy of the notification was transmitted to the Magistrate of the district. In consequence however of the holidays and in compliance with the wishes of the inhabitants I consented to postpone the collection till after the expiration of the Dusserah.

2. The day before yesterday, being Monday the 30th September, the collection was to have commenced but on the appearance of the Tehseeldar, they one and all shut up shops and houses. Yesterday the officers of Government were unable to make any progress in their business, and in the evening while I was driving out in my carriage, several thousands of the inhabitants were standing on either side of the road. They neither committed nor offered any violence, but poured forth complaints of the hardness of their situation, and clamorously declared their inability to pay the tax.

3. This forenoon I received a precept from the Magistrate (copy accompanying) requesting I would send the statement of assessment, together with Tehseeldar. With this request I complied. When after a great deal of desultory conversation, respecting the principle upon which he acted, he told the different people to go and open their shops, and sent me a proceeding and English letter which accompanies.

4. This proceeding forms the subject of my present address, and compels me to solicit your Board's orders for my guidance. The Regulation XV of 1810, directs the assessment to be made, and your Board's of the 14th August last, authorises the collection to be commenced. In opposition to both, however, the Magistrate desires me to desist, or at least to postpone the enforcement of the collection, till I have ascertained whether it has taken place in other districts. Now as I know of no Regulation which authorises me to defer the carrying into execution the regulation of Government till I have corresponded with the executive officers of the other districts on the subject, and can not conceive that Magistrates have any the least power to suspend, for a moment, their operation, I am at a considerable loss how to act, in the present instance. I know of no overt act of resistance. My Tehseeldar (whose urzee accompanies) reports indeed, that some had refused payment, on which I directed the process laid down in section 12, Regulation XV of 1810, to issue, but no opposition has been reported. Nor has there been time any to be made; if then a tumultuary assembly is permitted to successfully oppose, or temporarily to suspend the carrying into effect the orders of Government, I apprehend the worst consequence. In my opinion the Magistrate should have allowed the Regulation to have been carried into effect, and have waited till he heard from me, whether the enforcement for the penalty prescribed for disobedience of the orders, had been attended with evil consequences. Instead of this, to set himself against its operation in its very first stage, because a lawless rabble assembles, is striking at the root of that power, which the Government ought to possess over the subject; and if the principle laid down in the Magistrate's letter were to be admitted by every other Magistrate, allow me to ask when, and at what zillah the collection would commence.

Zillah Bhaugulpore
Collector's Office
the 2nd October 1811

I have & c
F. Hamilton,
Collector

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I.E.2 (a) *Magistrate to Collector, Bhaugulpore to Government*

2.10.1811

Sir F. Hamilton, Bart,
Collector of Bhaugulpore

Sir,

I beg leave to send you a proceeding of this date respecting the collection of the house tax, which I think it necessary should be suspended for a few days.

In consequence of all the inhabitants of the town having shut up their shops and assembled in a tumultuous manner, I called the principal merchants before me, who represented to me that, the tax has not yet been collected in Moorshedabad or any of the neighbouring zillahs, but that as soon as it can be ascertained that the collection has commenced in Moorshedabad or the adjacent zillahs, they are willing to pay it.

I have therefore deemed it requisite in order to preserve the peace of the town to send you the accompanying order taking the responsibility on myself.

Zillah Bhaugulpore, Faujdarry Adawlut
the 2nd October 1811

I am & c
J. Sanford

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I.E.3. *Magistrate of Bhaugulpore to Government*

3.10.1811

G. Dowdeswell Esq.,
Secretary to Government,
Judicial Department,
Fort William,

Sir

I beg leave to lay before you a copy of a letter and proceedings which I yesterday deemed it advisable to address to the Collector of the district, on the subject of the house tax, and although I may have somewhat exceeded the powers vested in me yet, I hope when the motives which have induced me to do so, are taken into consideration, my conduct will not meet with the censure of Government.

2. The day before yesterday, on going through the town of Bhaugulpore, I observed the whole of the shops shut up, and all the inhabitants amounting to some thousands assembled in a tumultuous manner in the streets calling out for redress and upon enquiry I found the cause of it to be the Collector's officers demanding the house tax.

3. I consequently yesterday morning summoned the principal people before me and explained to them the impropriety of their conduct and how useless it was for them to resist the orders of Government. They however declared in a body that they would give up their houses, and leave the town, but never would consent voluntarily to pay the tax, the nature of which had not even been explained to them. They also stated that they conceived it a grievance to be called upon for it in this zillah (which is the smallest in the Division) until the collections should commence at Moorshedabad and the adjacent zillahs, but that they were ready to pay it whenever the collections should commence at Moorshedabad.

4. Under the above circumstances, and in consequence of the prisoners in the jail having been near two days without their regular food, I deemed it, preferable, to adopt for the present the steps I have taken, to using force, which I have every reason to believe would have been attended with serious consequences, and I again express a hope that my measures will not be considered very reprehensible.

Zillah Bhaugulpore
Fouzdarry Adawlut
the 3rd October 1811

I have & c
J. Sanford, Magistrate

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I.E.4. *Government to Board of Revenue*

11.10.1811

Note: Read the Proceedings of the Judicial Department of the present date respecting the house tax at Bhaugulpore. The Secretary was directed on the 11th instant to write the following letter.

The Board of Revenue

Gentlemen,

I am directed by His Excellency, the Vice-President-in-Council to acknowledge the receipt of a letter from you dated the 9th instant and to transmit to you for your information the enclosed copy of the orders of this day issued to the Magistrate of Bhaugulpore on the subject of the house tax.

I have & c
G. Dowdeswell,
Secretary to Government,
Revenue Department

Fort William
the 11th October 1811

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I.E.5. *Government to Magistrate Bhaugulpore*

11.10.1811

Note: The Secretary was directed on the 11th instant to write the following letter to the Magistrate of Bhaugulpore.

The Magistrate of Bhaugulpore

Sir,

I am directed to acknowledge the receipt of a letter from you dated the 3rd instant with its enclosures and to acquaint you, that His Excellency the Vice-President-in-Council entirely disapproves the precept issued by you to the Collector regarding the collection of the house tax. The Vice-President-in-Council is the more surprised at the order in question, as he cannot suppose that the tenor of the instructions already issued to the Magistrate of Benares, and Patna and other places, declaring the intention of Government not to yield to clamour and illegal resistance to public authority was altogether unknown to you. Exclusively of the objectionable tenor of the order, the terms of it appear to Government extremely injudicious, being naturally calculated to excite a combination among the inhabitants of Bhaugulpore, and the inhabitants of Moorshedabad, Patna and other places.

2. With these sentiments the Vice-President-in-Council desires that on the receipt of this letter you will withdraw the order issued by you to the Collector in the most public manner possible.

3. I am further directed to acquaint you, that the Vice-President-in-Council desires that you will afford every aid and support to the Collector in the discharge of the duty vested in him by the Regulations in regard to the collection of the house tax.

I am & c

Council Chamber
the 11th October 1811

G. Dowdeswell,
Secretary to Government

Ordered that a copy of the foregoing letter be sent to the Board of Revenue for their information in reply to their reference of 9th instant recorded on the Revenue Proceedings of the present date.

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I.E.6. *Collector Bhaugulpore to Government*

21.10.1811

Express Monday Night
half past 10 P.M.

G. Dowdeswell Esq.,
Secretary to Government,
Fort William

Sir,

I am sorry to acquaint you that in carrying into execution the collection of the house tax I was this evening most grossly assaulted in my carriage. Bricks, stones and every description of offensive missile was hurled at my head.

2. I am most severely cut in my face, and in my head; and had I not effected my escape into Mr Glass's house, nothing on earth could have saved my life.

I trust I have done my duty, and I am willing to proceed, but it must be under a different system or my life will be sacrificed, if not others.

I beg to acquaint you that at 2 o'clock this day I informed the Magistrate through the Vakeel of Government that several persons, whose names I specified in the Durkhast having refused to pay the tax, or to admit of their property being distrained, though some had admitted it, it was necessary to proceed to extremities and confine them. Instead of taking notice of my application, which was made with the view to prevent the occurrence of mischief, and which I accompanied with a note, he sent me a verbal answer, after 5 o'clock, that he would enquire into it on the morrow. This evening the disturbance occurred. Is it not rather extraordinary, that for the last three or four evenings, thousands have collected on the same spot with liquor, sweetmeats & c and no measures taken to disperse them? Is it not still more extraordinary that on each of these evenings police officers were seen in different places near to the spot, and that on this eventful evening not one was to be seen!

I am dreadfully wounded; but if able I will send a more particular statement tomorrow, in the meantime I must beg to refer you for the most particular information to Lt Nugent who was accidentally with me in the carriage.

I am & c
21 October 1811 F. Hamilton, Collector

Lt. Nugent will be in Calcutta nearly as soon as this letter.

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I.E.7. *Collector of Bhaugulpore to Government*

22.10.1811

Express
G. Dowdeswell Esq
Secretary to Government,
Fort William

Sir,

I wrote last night by express. I send this by a dingy to afford a chance of its reaching you earlier, as the disturbances have risen to a very serious height.

The mob has not yet been dispersed.

I am & c
22nd October 1811 F. Hamilton, Collector

I.E.8. *Collector of Bhaugulpore to Government*

23.10.1811

G. Dowdeswell Esq.,
Secretary to Government,
Fort William

Sir,

I wrote to you express the night before last, and a duplicate was transmitted yesterday in a dingy, respecting the opposition, that had been made to the collection of the House tax and the outrage committed on my own person. When I dispatched my letter by the boat, the Magistrate was opposed to the mob at Shahjungy with a strong military force. Last night the Magistrate retired and the commanding officer with his troops withdrew. Nothing has however been effected. I therefore judged it expedient to address the Magistrate *yesterday* (No. 1) to which I received no answer, owing of course to his having gone with the troops to the place where the mob had assembled. No communication having been made to me. I thought it proper to address him this morning (No. 2), to which I received his answer (No. 3) with Persian enclosures (4, 5, 6) and enclose my answer (No. 7A & B). The tenor of the Magistrate's last letter (No. 3) is at variance with his own proclamation just received, for he will profess no more power tomorrow to carry the Regulation into effect than he possesses now, and the favourable opportunity will have passed by. Under the circumstances I feel considerable embarrassment as to the mode in which I am to carry the orders of Government into execution. No exertion however on my part shall be wanting to effect the object in any manner consistent with existing circumstances, but, I despair of meeting with that energetic support from the Magistrate which the importance of the case requires. An immediate and decisive communication of the orders of Government is very desirable.

Zillah Bhaugulpore
Collector's Office
the 23rd October 1811
Express 4 P.M

I have & c
F. Hamilton,
Collector

I.E.8 (a). *Collector to Magistrate of Bhaugulpore*

23.10.1811

J. Sanford Esq.,
Magistrate of Bhaugulpore

Sir,

In continuation of my letter of yesterday's date, I have to request that you will inform me what measures you have adopted to encourage payment of the tax directed to be collected by Regulation XV of 1810.

The different persons mentioned in my Durkhast having as therein stated refused payment of the tax, it becomes necessary to call in the assistance of the police to levy the arrear by distress under clause 2 section 12 Regulation XV of 1810, and as the people are not assembled in tumultuous bodies today, it appears to me to be the most favourable opportunity to enforce that part of the Regulation. I request therefore that you will furnish such assistance as may be requisite for distraining the property of the defaulters and conveying it to my office in the course of the day.

Bhaugulpore Collector's Office I am & c
the 23rd October 1811 R. Hamilton, Collector

P.S. I have directed the Tehseeldar and Naib Collectors to attend you in order that they may be accompanied by your police officers.

Half past 12 Noon F. Hamilton

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I.E.8 (b). *Collector to Magistrate, Bhaugulpore*

23.10.1811

J. Sanford Esq.,
Magistrate of Zillah Bhaugulpore

Sir,

Permit me to request the favour of a written communication in reply to my application of this morning respecting the distress of the personal effects of the defaulters whose arrest was moved for by the Vakeel of Government the day before yesterday.

Zillah Bhaugulpore
Collector's Office — I am & c
The 23rd October 1811 — F. Hamilton
half past 2 P.M. — Collector

• • •

I.E.8 (c). *Magistrate to Collector, Bhaugulpore*

23.10.1811

Sir F. Hamilton, Bart
Collector of Bhaugulpore

Sir,

You must be well aware that my whole time and attention is at the moment given up to the preservation of the peace, when that point is fully established I shall immediately adopt such measures as may appear to me proper to carry the Regulation into effect.

In the meantime I send you a copy of my Nazir's report with my order thereon and an advertisement on the occasion. You are already in possession of the proclamation issued by me yesterday.

I beg leave to observe that I do not conceive my police officers without military assistance at present able to carrying into effect section 10 and 11 Regulation VII of 1799 and until a sufficient military force shall be assembled and enable me to act freely I think it advisable to refrain from measures of violence. Of this I shall give you due notice.

Bhaugulpore — I am & c
23rd October 1811 — J.Sanford, Magistrate

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I.E. 8 (d). *Collector to Magistrate, Bhaugulpore*

23.10.1811

J. Sanford Esq.,
Magistrate of Zillah Bhaugulpore

Sir,

I have this moment received your letter of this date.

2. Should a military force be necessary I had hoped that you would have enforced the Regulation by that means particularly as the troops are on the spot. It was in my mind impossible that a more favourable opportunity could have occurred for effecting the distraint of the personal effects of the defaulters than when they were deprived of the aid of numbers and no tumult was to be apprehended as the immediate consequence of an effective and vigorous effort in support of the authority of Government. I should forward a copy of your letter to the Presidency without loss of time.

Collector's Office — I am & c
the 23rd October 1811 — F.Hamilton, Collector

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I.E.9. *Collector of Bhaugulpore to Government*

23.10.1811

G. Dowdeswell Esq.,
Secretary to Government,
Fort William

Sir,

The moment I had dispatched my address to you by express at 4 o'clock this afternoon I proceeded in concert with the Magistrate, aided by a military force under the command of Major Littlejohn, to the house of Lushkerree Saho, a principal defaulter, and instigator of the present disturbances, for the purpose of levying by distress the arrear demandable from him on account of the house tax, the police alone being in the Magistrate's opinion, inadequate to enforce the Regulation.

2. Under the provisions of clause 2 section 12 Regulation XV, of 1810 and section 10 Regulation VII of 1799 the outer door

of Lushkerree Saho's dwelling house was forced open, and distress levied on his property, upon which a tender was made of the balance which was accepted, and I withdrew.

3. The Magistrate found arms in the house, which he thought proper to confiscate to Government.

Zillah Bhaugulpore
Collector's office — I have & c
8 O'Clock P.M. — F. Hamilton,
the 23rd October 1811 — Collector

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I.E.10. *Collector, Bhaugulpore to Government*

24.10.1811

G. Dowdeswell Esq.,
Secretary to Government

Sir,

My express of last night will have acquainted you that the tax was carried into effect on Lushkerree Sahoo, the most opulent inhabitant of Bhaugulpore, and one of the principal ring leaders in the late insurrection. I have now to acquaint you in continuation that several principal persons in the other divisions of Bhaugulpore having stood out and evaded payment I again proceeded with the Magistrate and troops, to carry into complete effect, and am happy to say that ere we had marched half way, intelligence was brought that the whole amount was paid without opposition or resistance of any sort, by all the ring leaders. The remainder of the persons, principally of the lower class, are paying in the money faster than I can well receive it. They commenced indeed at daybreak today. I have likewise the pleasure to acquaint you, that almost all the shops are reopened and that not the smallest assembly of people has taken place. Last night's transaction has indeed changed the face of things.

Bhaugulpore — I have & c
24th October 1811, 8 P.M — F. Hamilton, Collector

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I.E.11. *Magistrate, Bhaugulpore to Government*

24.10.1811

G. Dowdeswell Esq.,
Secretary to Government,
Judicial Department
Fort William

Sir,

From the lateness of the hour at which I sent off my express of the 22nd, the short time I had to prepare it, and the fatigue I had undergone during the day many omissions occurred which I have now the honour to supply and give in detail the circumstances as they took place.

2. I shall commence by stating to Government, the mode I took to make public the orders contained in the 2nd and 3rd paragraphs of your letter of the 11th. I shall next inform you, what I conceive to be the immediate causes of the meeting at the Hill House, when the Collector was assaulted, the manner of their dispersion before Doctor Glass's house, and the precaution taken for the night. I shall then state the measures I adopted in the morning of the 22nd for the preservation of the peace, and methods afterwards resorted to, to disperse the mob when these measures failed with my subsequent precautions to prevent a recurrence of the riots.

3. On the receipt of your letter above noticed, I instantly issued a proclamation throughout the town by beat of drum, and forwarded a proceeding to the Collector withdrawing my former order: copies of documents are enclosed.

4. About 4 o'clock on the afternoon of the 21st I received a durkhast from the Collector through the Vakeel of Government for the imprisonment of 16 defaulters named in the margin, which in my opinion in some measure occasioned the increased meeting of the people of the town that evening at the Hill House and was probably in a great degree the cause of the subsequent attack on the person of the Collector.

5. The negligence of the Cutwal on this occasion was such as to give me very great dissatisfaction as he was not, agreeable to my strictest orders, on the spot, nor had he as usual stationed the police officers there; neither could I procure his attendance until I had been some time at Dr. Glass's house, where the mob had assembled in the manner stated in my former letter. They

at last dispersed after repeated admonitions and the town then appeared so quiet that I discharged the troops on their arrival excepting a company at the jail. I afterwards directed my assistant Mr. Ewing to proceed to the Cutwally, and to remain there during the night, as a precautionary measure.

6. I received a report about midnight from Mr Ewing informing me the Cutwal was not to be found. On the morning of the 22nd I took every measure in my power to restrain the people from violence, and assembling tumultuously.

7. I published a proclamation a copy of which is enclosed, and issued dustucks for the apprehension of the people mentioned in the Collector's durkhast who I conceived to be the principal rioters. I suspended the Cutwal, who after having been absent all night from his chubootra arrived there at 4 o'clock in a state of intoxication. I also ordered all arms and clubs to be seized if in opposition to orders and sent for a small force to be stationed at the Hill House on the morning.

8. The people however collected but seeing the party immediately retreated to a place called Shahjunghy, where I dispatched my assistant with my police officers to use their utmost endeavours to disperse them. This having failed I went to the Hill House, and sent for more troops to meet me at Shahjunghy, whither I proceeded after waiting a short time to allow them to arrive. We there found about eight thousand persons assembled, but totally unarmed. The principal of them kept in the centre of the crowd so that it was impossible to apprehend them, and as I was informed on the spot were performing funeral ceremonies. They however dispersed after having been repeatedly told if they remained they would be fired at. They then requested permission to present a petition the next morning which I agreed to receive giving them fully to understand that the collection of the house tax would not be suspended, nor the petition received unless presented to me in court in a regular and respectful manner. After the dispersions there remained a numerous rabble consisting partly of weavers and other artificers, the rest old women and children. I spoke to some of them who expressed an apprehension that if they began to disperse those who remained last would be fired upon. But on being assured that this would not be done they agreed to disperse, left the place at the same time we did, and returned respectively to their houses.

9. The place appearing perfectly quiet I discharged the troops who were greatly in want of refreshment. Having less reason to apprehend a reassemblage of the people in the morning,

I only put in effect the same precautions as I had done the night before, and returned home. I then made my communication of the 22nd.

10. During the night there was an appearance of disturbance. But with a view to carry into effect the Collector's durkhast I addressed the same night enclosure No 6 to Major Littlejohn, and received in answer enclosure No. 7 and 8. The following morning I went into the town and found all quiet. On my return I wrote to Major Littlejohn enclosure No 9 and in the course of the morning issued several proclamations of the same tenor with that of yesterday. I also stationed the Cutwal and police peons to prevent a reassembly of the mob, at that place, and finding that some liquor shops had been open the day before, contrary to my orders, I sent an order to the Collector to close them also. This day a few persons assembled in the morning at Shahjunghy, but were dispersed immediately by the Cutwal and his officers. It was now noon and I had no account of the petition mentioned the evening before, and the people reassembled in fewer numbers however than the preceding day, and I therefore dispatched Mr Ewing to the spot to disperse them if possible. This however could not be affected. I did not however deem it expedient to take the military (who had by this time arrived) to the spot as the principal defaulters who were there the day before had not assembled, and it would have interfered with the plan I had laid of carrying into effect the execution of distraint in the town for which measure I was particularly anxious as it appeared the most effectual and at the same time the mildest manner of putting a stop to the tumultuous proceedings of the people. In pursuance of this design I proceeded about 4 p.m. in company with the Collector (as will appear from the annexed correspondence) to the town and taking the precaution of stationing the troops at a small distance. The distrainers under section 10 Regulation VII, 1799 as directed in second paragraph of section 12 Regulation XV, 1810, broke open the house of Lushkerree Saho, the principal first defaulter, and realised property to the amount of the tax, Rs.42½. This property was no sooner distrained than a servant of the defaulter appeared with the money which was received by the Collector and the property returned. A quantity of arms that were discovered in the house were secured. There were apparently no persons in the house unless in the female apartments where I have reason to suppose some persons were concealed. The beneficial effects of having carried this measure were immediately apparent as the whole mob dispersed, nor is there today the least appearance of their

reassembling, and the whole of the Soojagunje as well as the rest are preparing to pay the tax.

Zillah Bhaugulpore	I have & c
Fouzdarry Adawlut	J. Sanford
the 24th October 1811	Magistrate

P.S. I omitted to state in the body of my letter, that I have taken upon myself to offer a reward of Rs. 500 for the apprehension of any of the persons who assaulted the Collector, which measure I hope will meet with the approbation of Government.

P.S. II. I hope want of time will plead my excuse for not furnishing a translation of the Persian papers.

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I.E.11 (a). *Major Littlejohn to Magistrate, Bhaugulpore*

23.10.1811

J. Sanford Esq.,
Magistrate, Bhaugulpore

Sir,

In answer to your letter just received I have to observe that the disposable force of the Hill Rangers, the four companies about 160 rank and file, leaving only the usual guards in the town could disperse such a mob as appeared today, though very large, and if the 16 rioters were present they might possibly be overtaken and secured. But you must consider that they had not a single weapon of any kind, and in the event of their flying to arms of any kind in such an extensive and scattered town, I hardly think the corps could repel a protracted insurrection. The force could not with propriety be separated, and would soon be harassed with constant duty and deprived of food, except it were forcibly obtained.

The native officers of your court can best inform you of the plan the rioters have in view, and of the probability of immediate coercive measures of having the desired effect. When the principal people retired last evening, the remaining part of the mob *women*, and their *children* seemed to have no dread of the consequence of firing among them, but rather sought it. But it is my opinion that ultimatum should not take place unless the ringleaders are on the spot and if you think such a step and the securing of them would put a stop to insurrection it ought not to be delayed.

If it is your intention to meet the people who petitioned for it last evening, in numbers, I think it proper that all the desirable force should be present. But I conceive it would be better not to receive them attended with a mob, but to desire that their arzee may be sent to you when you can act accordingly. I am very averse to frittering the corps into parties, particularly as I am deprived of the assistance of European officers and it is to be observed that hill men are not on a footing with Hindustanies or have ever been placed in such a situation.

After what I have said above I beg you will inform me if I shall march with the corps to the Cutwallee, and at what hour you will expect me there.

I am & c
1 O'Clock A.M. P. Littlejohn
23rd October 1811 Commanding Hill Rangers

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I.E.11 (b). *Magistrate, Bhaugulpore to other Magistrates*

23.10.1811

The Magistrates, Adjacent Districts

Sir,

I request you will issue such orders as you may deem advisable for preventing people from proceeding from your district to Bhaugulpore in bodies exceeding the number of ten and to intercept all arms which may be supposed to be intended for Bhaugulpore.

2. My reason for making this requisition is that the people have assembled in tumultuous bodies for some days past for the purpose of resisting payment of the house tax and there is reason to believe that every endeavour will be made by their leaders to procure reinforcements from other districts.

3. I further request you will do me the favour to intercept all native communications of a suspicious tendency and forward the same to me.

Zillah Bhaugulpore
Fouzdarry Adawlut I am & c
23rd October 1811 J. Sanford, Magistrate

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I.E.12. *Magistrate, Bhaugulpore to Government*

24.10.1811

G. Dowdeswell Esq.,
Secretary to Government,
Judicial Department,
Fort William

Sir,

When I concluded my detailed report of this day's date, I entertained hopes that all resistance to the collection of the house tax was at an end. About 1 o'clock however I received the enclosure No. 1 from the Collector and immediately ordered out the troops.

2. At 4 p.m. I and the Collector proceeded with the military towards the house of the defaulters. But before we could arrive on the spot many of them had paid. I therefore requested the commanding officer to halt the troops, and sent forward the Cutwal in company with the Collector's amlah to require immediate payment from the remainder.

3. After waiting a short time the whole was paid, upon which I desired the commanding officer to march back the troops.

4. I am happy to add that most of the shops in the town are now open, and I have no idea that there will be any further resistance.

Zillah Bhaugulpore
Fouzdarry Adawlut
the 24th October 1811
7 O'Clock P.M.

I have & c
J. Sanford
Magistrate

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I.E.13. *Collector, Bhaugulpore to Government*

25.10.1811

G. Dowdeswell Esq.,
Secretary to Government,
Fort William

Sir,

I have the satisfaction to acquaint you that the collection of the house tax has proceeded without any opposition or resistance. The people are paying the money readily and the shops are opening.

Collector's Office
Bhaugulpore
25th October 1811
6 P.M.

I have & c
Frederick Hamilton
Collector

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I.E.14. *Collector, Bhaugulpore to Government*

26.10.1811

G. Dowdeswell Esq.,
Secretary to Government,
Fort William

Sir,

I am happy to communicate to you that no further opposition has been made to the collection of the house tax, as will be seen from the enclosed reports from the Tehseeldars.

Collector's Office
Bhaugulpore
the 26th October 1811

I have & c
Frederick Hamilton
Collector

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I.E.15. *Resolution of Government on receipt of the letter dated 21.10.1811 from Collector of Bhaugulpore reporting the assault on him 26.10.1811.*

The Vice-President in Council having taken the foregoing letter into consideration observes, that on the 11th instant he had occasion to express his marked disapprobation of the conduct of the Magistrate of Bhaugulpore in suspending the collection of the house tax, instead of affording to the Collector the necessary aid and support in the collection of the tax, which the obligations or the Magistrate's public duty obviously and indispensably required. The Vice-President in Council is satisfied that the native inhabitants of Bhaugulpore would not have ventured to offer the insults and outrages described in the foregoing letter, to the Collector, and in his person to the Government itself, had the Magistrate on receipt of the orders of the above date adopted the necessary precautions for the maintenance of the public peace, and for the due support of the Collector and of his native officers in the discharge of the duty entrusted to them with regard to the collection of the house tax.

On the grounds above stated, the Vice-President in Council deems it indispensably necessary to suspend Mr Sanford from the office of Judge and Magistrate of Bhaugulpore, and in order to provide for the discharge of the duties of that station to depute Mr. H. Shakespear to officiate as Judge and Magistrate of Bhaugulpore until further orders.

Ordered that Mr Sanford be accordingly directed to deliver charge of the office of Judge and Magistrate to Mr Shakespear immediately on his arrival in the district.

Ordered that Mr Sanford be at the same time informed that the Government will be ready to consider any circumstances which he may be desirous of submitting in justification of his conduct, which, combined with the detailed information which the Vice-President in Council will of course receive from the Acting Magistrate and from the Collector, will enable Government to judge how far it may be again proper to employ him in the responsible situation of a Judge and Magistrate.

Ordered that the necessary instructions be issued to Mr Shakespear in conformity to the foregoing resolution and that he be further informed, that adverting to the circumstances which have led to his present deputation, the Vice-President in Council desires that he will make it an object of his particular attention to enforce payment of the tax in conformity to the assessment fixed by the Collector and confirmed by the Board of Revenue.

Ordered that an extract from the Proceedings be forwarded through the Military Department to the Commander in Chief and that His Excellency be requested to consider whether it be necessary that any military force should proceed to Bhaugulpore in addition to the corps of Hill Rangers, with the view of supporting the Collector and the officers of police in the discharge of their public duty, and if so to issue the necessary orders accordingly.

Ordered that the tenor of the foregoing orders be communicated to the Board of Revenue and to the Collector of Bhaugulpore.

G. Dowdeswell
Secretary to Government,
Judicial Department

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I.E.16. *Government to Collector, Bhaugulpore*

29.10.1811

Ordered that the Secretary, write the following letters to the Magistrate of Bhaugulpore, to Mr. Ewing, and to the Collector of Bhaugulpore.

The Collector of Bhaugulpore

Sir,

I am directed by His Excellency the Vice-President in Council to acknowledge the receipt of the following letters from you with their enclosures: one dated 22nd, two dated 23rd, one dated 24th.

2. His Excellency in Council has observed with great satisfaction that the authority of Government has been reestablished in the district of Bhaugulpore and that the payment of the house tax has been fully enforced.

3. Under the circumstances above noticed, it has been deemed sufficient to direct Mr Ewing to receive charge of the district from Mr Sanford and to officiate as Magistrate until further orders. A copy of the letter written to Mr Ewing on the occasion is enclosed for your information.

4. On a general review of the circumstances attending the late disturbances, the Vice-President in Council has observed with equal satisfaction and approbation the firmness manifested by you in the discharge of the duties of your station and in support of the legitimate authority of Government.

I am & c
G. Dowdeswell
Secretary to Government
Judicial Department

Council Chamber
the 29th October 1811

Ordered that Mr H. Shakespear be informed that reports from the Magistrate and Collector of Bhaugulpore having been received signifying that the authority of Government has been reestablished in that district and that the payment of the house tax had been enforced, the Vice-President-in-Council is pleased to rescind the orders passed on the 26th instant deputing him to take charge of the office of Judge and Magistrate of Bhaugulpore.

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I.E.17. *Magistrate, Bhaugulpore to Government*

31.10.1811

G. Dowdeswell Esq.,
Secretary to Government,
Judicial Department,
Fort William

Sir,

I have this moment with sentiments of the deepest regret, mortification, and distress received your communication of the orders passed by Government on the immediate receipt of a report from the Collector of the district respecting the outrage offered to himself and in his person to the Government by the native inhabitants of Bhaugulpore who had assembled to resist payment of the house tax.

2. The report appears evidently to have been penned at the impulse of the moment, when the Collector's mind was naturally in a state of extreme irritation and acted upon at a time when the high authority of Government itself was felt to have been grossly outraged and degraded in the person of their officer. Under the circumstances I submit with deference to the temporary displeasure of Government in the full confidence that the Government in its justice will not have withholden from me the full share of approbation to which my conduct on a complete view of the case in all its bearings will since have shown me to be fairly entitled and that the deputation of Mr Shakespear will have been countermanded before he can have left Calcutta.

3. The detached reports submitted by the Collector and myself contain all the material facts and I look to them with confidence for my full exculpation.

4. My reasons for not calling in military aid previous to the attack on the Collector have already been stated in my address to you of the 22nd and 24th instant. Whether any credit be due to my forbearance in not requiring it sooner is a question for the calm and deliberate wisdom of Government to decide. Doubt may possibly be entertained on the prudence of a partial delay but none can exist as to the motives which influenced my conduct on that occasion, nor of the sincere desire I entertained to execute the orders of Government in the mode which appeared to me best adapted to the object which was meant to be attained. That no police officers were at hand when the attack was made on the Collector is entirely attributable to the negligence and wilful misconduct of the Cutwal, whom I accordingly suspended from office as already reported to Government.

5. In regard to the measures which I adopted subsequent to the outrage against the Collector's person I may perhaps claim some share of merit. The best Magistrate would have found it difficult to have effected more than I did. Plain facts speak for themselves. It is sufficient to recite that the people were dispersed, the confederacy broken, the tax collected and the most perfect tranquility restored without the loss of a single life, in the short period of three days from the commission of the first act of violence by the rabble. I advert to these facts with a sense of conscious pride and satisfaction that my endeavours have not been wanting to perform the arduous duty of my office on a highly critical occasion with energy and zeal for the public service, but that my well meant endeavours have been crowned with success. For all beyond it I submit to the indulgent candour of Government.

6. I write under great agitation and hope every allowance will be made for the acuteness of my feeling on an occasion wherein my public character, credit and future prospects in the service are so deeply implicated.

Bhaugulpore
31st October 1811
half past 8 P.M.

I have & c
J. Sanford
Magistrate

I.E.18. *Magistrate, Bhaugulpore to Government*

5.11.1811

(Extract)

5. In my defence I now think it absolutely necessary and due to myself, to waive all delicacy towards the Collector, who has evidently shown very little to me as well in his report to Government, as in his correspondence with myself (perhaps it may be observed I ought to have done this before, but I was determined to put to paper nothing that might appear illiberal or to his detriment unless actually compelled, which I now conceive to be the case). In the first place when the Collector in his letter of the 21st addressed to Government states that he was assaulted in carrying into execution the collection of the house tax, he deviates from the truth; secondly I have every reason to believe (and this is also the opinion of other Gentlemen of the station), that had he not irritated the mob, by flogging them the assault never could have taken place. As however it may appear invidious and improper in me to enter into a detail of real facts, I trust that Government will do me the justice to direct the Judge of Circuit at the next jail delivery which will take place in the course of the present month, to investigate the whole business, when no doubt Government will obtain a fair and impartial statement.

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I.E.19. *Government to late Judge and Magistrate*

12.11.1811

J Sanford Esq.,
Late Judge and Magistrate,
Bhaugulpore

Sir,

I am directed by His Excellency the Vice-President in Council to acknowledge the receipt of your letters under date the 31st ultimo and 5th instant, and agreeably to your suggestion, the Judge of Circuit will receive instructions to investigate the circumstances of the assault on the person of the Collector when the trial of the person who stopped Mr. Ewing's buggy and whose commitment is reported in your letter now acknowledged shall come before him.

2. With reference however to your remark, that the Collector has deviated from the truth in stating that he was assaulted in carrying into execution the collection of the house tax, I am instructed to observe that although the assault was not committed literally when the Collector was in the act of collecting the tax it was so obviously the consequence of his having been engaged in the performance of that duty, as to render the Collector's statement substantially correct: And as you must have been perfectly aware that the Collector did not mean to describe the assault as having been committed when he was actually engaged in collecting the tax, His Excellency in Council consider you to have taken an unfair advantage of a mere inaccuracy of expression employed in the preparation of a hurried and urgent despatch to charge the Collector with a deliberate departure from the truth.

3. The final determination of Government on your case, under the explanations which you have furnished, will be hereafter communicated to you.

I am & c
Council Chamber N.B. Edmonstone,
the 12th November 1811 Chief Secretary to Government

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I.E.20. *Acting Magistrate, Bhaugulpore to Government,*

6.11.1811

(Extract)

2. I hope it will not be deemed presumption if I offer my humble opinion, that the assault on the Collector had no connection with the measures of the Magistrate or the collection of the house tax, but was entirely unpremeditated and accidental. I am also of opinion, that it can scarcely be called the act of the mob, but was perpetrated by a few of the lowest rabble in a state of intoxication.

3. To show that this was the case, I beg leave to transmit a copy of my report to the Magistrate on the occasion, which, though it relates only to the apprehension of the man who stopped my horse, will point out the immediate cause of the outrage.

I have & c
J. Ewing, Acting Magistrate

I.E.20 (a). *J. Ewing to Magistrate, Bhaugulpore*

22.10.1811

J. Sanford Esq.,
Magistrate of Bhaugulpore

Sir,

I think it necessary to state in writing, the circumstances of the apprehension of Fuzzul Ali with which I have already acquainted you verbally.

As I was driving yesterday evening in my buggy accompanied by Mr. Cracraft, I observed a crowd of several thousand people assembled in the plain under the Hill House. We passed them without interruption. On returning however a man who appeared in a state of madness or intoxication, ran up to the horse but missing his head he laid hold of the shaft of the buggy and coming near the step snatched at the reins which he failed in getting hold of. The syce instantly seized him by my order, and Mr. Cracraft leaping out, tied the man's hands behind him. While we were thus engaged, a great crowd gathered round but did not interrupt us. At length a few other men in liquor began to be insolent, and told us we must release the man. Sir F. Hamilton drove up at the moment and dismounting from his phaeton dispersed the people who surrounded us with his whip. Sir F. Hamilton then remounted and drove on towards the west, and the attention of the mob, being directed to him, I was enabled to get to some distance with the prisoner whom I sent to the Cutwally under charge of my syce.

Zillah Bhaugulpore
Fouzdary Adawlut
the 22nd October 1811

I am & c
J. Ewing
Assistant

(A true copy) J. Ewing, Acting Magistrate

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I.E.20 (b). *Government Decision on Acting Magistrate's letter*

19.11.1811

Remark: The Board observes that orders having already been issued for the investigation of the disturbance at Bhaugulpore, no further orders are at present necessary on the foregoing letter.

I.E.21. *Government to Magistrate, Bhaugulpore*

19.11.1811

Resolution: [after considering charges and countercharges by Collector and J.Ewing, Acting Magistrate, against each other in voluminous correspondence]

The Governor-General-in-Council is pleased to direct that Mr. Sanford be desired to resume the charge of the duties of Judge and Magistrate of Bhaugulpore from the exercise of which he was lately suspended reserving however for future consideration a final decision with regard to his permanent reestablishment in that office.

Ordered that the foregoing resolution be communicated to Mr. Ewing and the Collector of Bhaugulpore.

Ordered that the Secretary write the following letter to the Judge and Magistrate of Bhaugulpore.

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I.E.21 (a). *Government to Magistrate, Bhaugulpore*

19.11.1811

J.Sanford Esq.,
Judge and Magistrate,
Bhaugulpore

Sir,

Government having received from the Collector of Bhaugulpore, the copies and translations furnished to him by the late Acting Magistrate of the proceedings of the latter in the investigation of the charge preferred against Gopal Doss, a clashy in the service of the Collector, of purloining a part of the effects of Lushkerree Sahoo when his property was about to be distrained for the recovery of the house tax, and also in entertaining a question and taking evidence upon it relative to the alleged precipitancy of the Collector in proceeding to levy the tax by distraint: I am directed to inform you, with respect to the first of these points, that the Collector has been directed to apply on behalf of his servant for the redress of the injustice of which he complains to the superior court in the mode prescribed by the regulations in such cases.

2. With respect to the second point, I am directed to inform you, that the conduct of the Acting Magistrate in taking evidence on the question of the Collector's alleged precipitancy in levying a distress for the house tax, is considered to have been irregular and highly objectionable, the investigation of that question being deemed foreign to the duties of his office and manifestly tending to the revival of the disturbances which had been so recently suppressed.

I am & c
Council Chamber N.B. Edmonstone
the 19th November 1811 Chief Secretary to Government

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I.E.22. *Collector, Bhaugulpore to Government*

23.12.1811

G.Dowdeswell Esq.,
Secretary to Government,
Fort William

Sir,

I beg to acquaint you for the information of the Right Hon'ble the Governor General in Council, that I have not met with any resistance in proceeding in the collection of the house tax.

Bhaugulpore Collector's Office I am & c
the 23rd December 1811 F.Hamilton
Monday 6 P.M. Collector

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I.E.23. *Government to Collector, Bhaugulpore*

10.1.1812

The Collector of Bhaugulpore

Sir,

I am directed by the Right Hon'ble the Governor General in Council to acknowledge the receipt of your letter of the 23rd ultimo.

2. Tranquility having been established at Bhaugulpore the Governor General in Council desires that all your future communications respecting the house tax may be made through the established channel of the Board of Revenue.

I am & c
G. Dowdeswell
Secretary to Government
Revenue Department

Council Chamber
the 10th January 1812

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I.E.24. *Collector, Bhaugulpore to Government*

17.2.1812

G. Dowdeswell Esq.,
Secretary to Government in the Judicial Department,
Fort William

Sir,

I have this day received information, that the Magistrate of Bhaugulpore, in a letter to Government dated the 5th of November, has directly accused me of irritating the mob by flogging them, on the evening of the 21st of October last when I was assaulted.

2. The validity of this assertion can not be affected, one way or the other by my absence from, or presence at Bhaugulpore, and even supposing that the fact was established, it might be of some use to the persons who committed the outrage, but could in no possible manner extenuate the Magistrate's conduct, in allowing the mob to assemble, for four or five days previous. I shall content myself therefore, at present by giving a simple denial to the assertion and in requesting that the investigation of this point may proceed; entreating only, that its proofs may rest on other grounds than the testimony of the persons who had tumultuously assembled, and to whose interest it must necessarily be, that I should be made out guilty, and they pronounced innocent. The Magistrate himself was not there.

3. Had they murdered me, it would have been but a secondary consideration, except to individuals, but the dignity of the state is the primary object of this investigation. The mob assembled for the purpose of opposing the tax and it had collected for several days, previous to the 21st October, on a certain

spot with liquor, sweetmeats, priests & c and near to which was an immense heap of bricks.

I take the liberty to request that the attention of the circuit judge may be directed to the following points.

Whether the aggression was not commenced, in the first instance, by a man seizing Mr. Ewing's buggy reins, preventing him going on, and attempting to strike the gentleman with him.

Whether on my coming up I did anything more than crack and flourish the whip, and particularly whether I touched any body, or in any way personally assisted in securing the individual.

4. I request also that the Magistrate may be called upon to state what precautionary measures he adopted to prevent the assemblage of this mob, what steps he took to disperse them during the four or five days that they had assembled previous to the assault and what orders were issued by him, in consequence of your letter to him of the 11th October with a view of supporting me in the discharge of my duty.

5. As it is impossible for me in any way, to be at Bhaugulpore in time, and as the circuit judge is proceeding in the investigation during my absence, allow me to entreat that he may be directed to apply for any information, of which he may stand in need, on this particular point to Majors Franklin and Littlejohn. They know as much of the business as I do, for I never touched one of them.

6. For the most rigid investigation of the circumstances of the late riots I most anxiously wished and I clung to the hope that it would take place to the last moment and had Government condescended to inform me that such a thing was in agitation, nothing would have induced me to leave Bhaugulpore.

7. The general tendency of the investigation, as now proceeding, is the assault on my person, this I again repeat, even in my own estimation, is but a secondary consideration, an aggravation of the first great fault, and I shall never cease to lament that any consideration of this secondary nature should be allowed to prevent a full circumstantial enquiry into the causes of the late riots.

Calcutta
the 7th February 1812

I have & c
F.Hamilton, Collector

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I.E.25. *Government to Circuit Judge*

18.2.1811

Ordered that the secretary write the following letter to the second judge of circuit for the Division of Moorshedabad, at Bhaugulpore.

The Second Judge of Circuit for the Division of Moorshedabad at Bhaugulpore

Sir,

I am directed to transmit to you the enclosed copy of a letter from the Collector of Bhaugulpore to acquaint you that the Right Hon'ble the Governor General in Council desires, that you will give all the attention to the circumstances stated by him, and to any further representations, which may be eventually made to you on his behalf, which may be consistent with established forms of procedure in the inquiries in which you are engaged regarding the late disturbances at Bhaugulpore.

I have & c
G. Dowdeswell
Secretary to Government
Judicial Department

Council Chamber
the 18th February 1812

Ordered that a copy of the above letter to the Second Judge be transmitted to the Collector of Bhaugulpore for his information.

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I.E.26. *Second Judge of Circuit to Government*

7.3.1812

(Extract)

3. On the part of the Tehsildar of the house tax, I am afraid an obvious departure from the rules prescribed by Regulation XV, of 1810, in the mode of carrying the tax into execution at this station, will appear; no oath having been administered to him; and he appears to have applied the authority vested in him, too partially, and with no discrimination either with reference to the local limitation of the houses, qualifications of the people, or the legal amount of the assessment. I have grounded this opinion solely on some casual circumstances, that forced themselves upon my observation, in the course of the investigation; but as

I considered it a subject irrelevant to the points I was required to report upon, I did not give it its full enquiry, and am far from meaning to imply the least blame to the Collector; by the necessity of mentioning it. As he was not on the spot, to answer for himself and probably like most of the gentlemen holding offices of responsibility in this service, he has been deceived by his native officers, and abuses may have existed unknown to him, I need only add that if it should appear, that those abuses did exist, it will certainly form one of the leading features of the cause to which the late disturbances are ascribable, and I could not consistent with the nature of the official duty reposed in me, however painful, pass it over entirely unnoticed.

4. To carry into effect with satisfaction to the Government and at the same time, to secure the toleration of the people, on a measure which has been received with such universal dissatisfaction by the populace of all descriptions of persons, appears no easy task. It equally places the Magistrate and the Collector in a trying, dangerous, and invidious situation. The Collector because, he is compelled to confide in executive officers, who can not by any artificial means be made honest or worthy of trust, on the most simple occasion, where the realisation of money is the object but particularly, on the wide and open field for speculation, abuse and intrigue, offered to the person employed in carrying into execution the collection of the house tax. The Magistrate, because, he has really not the means of diverting the consequences of resistance and opposition to the wishes of Government. It is easy to talk of assistance from the police; or of the more imposing aid from the native troops. But it should be remembered that both the police officers, as well as the sepoys are in common with others, personal sufferers by the house tax; at least their families are so, sufficiently to excite in their breasts, feelings and inclinations inimical to the successful issue of the measure, and that from the very officers, from whom alone, the Magistrate could be led to expect, or look up to, for a decided and vigorous support in the critical hour of emergency.

6. Sir Frederick Hamilton certainly appears to have been severely treated by the mob on the evening of the 21st October last; and though his motives for rushing singly and precipitately into the midst of an enraged and irresistible mob, in the offensive manner he is stated to have done, with the view I presume of rescuing Mr. Ewing from the perilous situation, in which Sir F. Hamilton considered that gentleman to be in, at the moment,

was laudable; yet, it was best, an act that betrayed more temerity than discretion. For upon what principle could Sir F. Hamilton, have expected to escape untouched, and if indeed he had made a similar attempt to disperse an English mob; composed of from four to five thousand people with merely a hunting whip in his hand; he would inevitably have lost his life. Men under the influence of certain passions, are pretty much the same all over the world, and with respect to the insult offered to the Government in the person of Sir F. Hamilton, I imagine the lower description of natives of this country, have not yet arrived at that state of civilised refinement, to all reflections of ceremony to operate on their minds, particularly when smarting under the dread of exactions, which they themselves at least considered arbitrary and oppressive.

I have & c
W.T. Smith
Second Judge of Circuit
the 7th March 1812
Division of Moorshedabad

Zillah Purneah

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I.E.27. *Government to Magistrate, Bhaugulpore*

18.4.1812

Ordered that the secretary write the following letter to the Magistrate of Bhaugulpore

The Magistrate of Bhaugulpore

Sir,

In the Chief Secretary's letter of the 12th November last, you were informed that 'the judge of circuit would receive instructions to investigate the circumstances of the assault on the person of the Collector, when the trial of the person, who stopped Mr. Ewing's buggy and whose commitment is reported in your letter, now acknowledged, shall come before him'.

2. The judge of circuit having since submitted to Government a copy of the proceedings held by him in that case, it appears to Government to have been established, that the disturbance commenced with a riotous attempt made by a man, apparently in a state of intoxication, to stop Mr. Ewing's buggy. It likewise appears, that in this stage of the business the Collector drove forward among the crowd, and alighting from his

carriage exerted himself to disperse them. The evidence taken likewise leaves no doubt in the mind of the Governor General in Council, that Sir Frederick Hamilton in endeavouring to accomplish that object struck some of the crowd with his whip.

3. The facts above stated forming the principal features of the cause, so far as the conduct of the Collector with respect to the disturbance is concerned, the Governor General in Council considers the exertions made by Sir F. Hamilton, to aid Mr. Ewing to have been not only warrantable but laudable although the use made by him of his whip was indiscreet, and objectionable.

4. It remains to notice the tenor of the report submitted by the Collector to Government on the occurrence of the above mentioned disturbance. In that letter it is stated, that he had been most grossly assaulted in carrying into execution the collection of the house tax. From the circumstances however above stated and from the general tenor of the evidence taken by the judge of circuit, it is apparent that the personal injury which the Collector experienced, was not in strictness received by him in the discharge of that duty; although committed by a concourse of people assembled to oppose the collection of the tax. It must be regarded as a consequence of the mode, in which he proceeded to aid Mr. Ewing, as already noticed. The establishment of those facts consequently renders it necessary to correct the judgement passed by Government with respect to that point, as stated in the chief Secretary's letter to you of the 12th November last.

5. His Lordship in Council likewise deems it necessary to observe, that the regard due to the character of a public officer should have suggested to the Collector the propriety of communicating the letter in question to you, if not before the dispatch of it, at least immediately afterwards; which would of course have enabled you to have offered those explanations which you might have judged necessary.

I am & c
G. Dowdeswell
Secretary to Government
Judicial Department

Council Chamber
the 18th April 1812

Ordered that a copy of the foregoing letter to the Magistrate of Bhaugulpore, containing the final orders of Government respecting the late disturbances in that district on account of the collection of the house tax, be transmitted to the Collector of Bhaugulpore for his information.

II

MANNER OF RETRACTION IN POLICY

II.1 *G.Dowdeswell, Late Senior Member of the Board of Revenue (also Secretary, Revenue and Judicial Departments) to N.B. Edmonstone, Chief Secretary to Government*

18 October 1811

(Extract)

HOUSE TAX

11. Considerable progress has been made in the assessment of the tax on houses, and it may reasonably be expected that it will be shortly completed throughout Bengal, Behar and Orissa.

12. From the experience hitherto obtained on the subject, it appears clear, that the tax can not be an object to Government except at the city and suburbs of Calcutta. At other places, at least (at the cities) I am led to believe, from all that I have heard on the subject, that a considerable degree of irritation still prevails on account of the tax, and that years must elapse before that irritation will altogether subside.

13. If this view of the subject be correct, the sacrifice of 2 or 3 lakhs of rupees (for I do not conceive that the aggregate amount of the tax will exceed that sum) may not perhaps be thought too much to conciliate the affection of the large bodies of people, comprising the cities and principal towns, and by these means to draw closer the ties which unite the community to the Government.

14. If however the produce of the tax be still deemed an object of moment, I would suggest that it be commuted for a tax on the licences issuable to the several classes of people specified in section 12, Regulation 1, 1811. Such tax would rather aid than obstruct the reform of the police, by eventually reducing the number of persons employed in the trades in question, who require to be vigilantly watched by the police, and if the Regulation and tax were extended to the Western Provinces (also Secretary, Revenue and Judicial Departments,) as might

hereafter be done, the produce of the latter would in all probability be equal to the tax on houses.

15. Should these suggestions appear to merit attention, it may of course be also considered, whether the tax on houses in the suburbs of Calcutta, might not be still continued, where the greater part of the objections which may be urged to the tax in other places do not exist.

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II.2. *Chief Secretary to R. Rocke, Acting President and Members of the Board of Revenue*

22.10.1811

(Extract)

5. On consideration of the observations contained in these paragraphs, and of all the circumstances of the case, the Vice-President in Council is satisfied at the expediency of abrogating the tax on houses established by Regulation XV, 1810, and with that view is pleased to direct, that in the first instance the process of assessment at the stations where it may not have been completed be stayed and that the collection of the tax where it may have been commenced be stopped, with exception however of any places at which commotions originating in a resistance to the operation of the tax, may exist at the period of the receipt of the present orders. His Excellency in Council accordingly desires that you will issue orders in conformity to the resolution; requiring reports from the collectors, to whom those orders are to be addressed, in reply to them; copies of which reports are to be submitted to the Vice-President in Council, who on the receipt of them will pass orders for the final abrogation of the tax, unless the existence of any open oppositions should render it necessary either wholly or partly to enforce the collection of it. For the reasons assigned by Mr. Dowdeswell however these orders are not intended to apply to the suburbs of Calcutta.

6. Instructions, corresponding to those contained in the preceding paragraph will be issued to the Board of Commissioners with respect to the city of Benares.

N.B. Edmonstone
Chief Secretary

22 October 1811

II.3 *Chief Secretary to Board of Commissioners at Farrucaubad*

22.10.1811

The Board of Commissioners

Gentlemen,

His Excellency the Vice-President in Council having had under his particular consideration the tax on houses established by Regulation XV, 1810 is satisfied of the expediency of abrogating that tax. The Board of Revenue has been in consequence directed to stay the process of assessment at the Stations at which it may not have been completed and to stop the collection of the tax, where it may have been commenced, with the exception however of any places, at which commotions originating in a resistance to the operation of the tax may exist at the period of the receipt of the above mentioned order.

2. In like manner the Vice-President in Council desires that you will furnish the Collector of Benares with the necessary instructions on the subject in conformity to the resolution above stated, reporting the result to you for the information of the Vice-President in Council, who on receipt of the reply of the Collector of Benares and of the several Collectors in the Provinces of Bengal, Behar and Orissa, will pass final orders for the abrogation of the tax, unless the existence of any opposition should render it necessary either wholly or partially to enforce the collection of the tax.

I have & c
G. Dowdeswell
Secretary to Government
Revenue Department

Fort William
the 22nd October 1811

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II.4 *Government to the Board of Revenue*

3.12.1811

Ordered that the Secretary write the following letter to the Board of Revenue.

The Board of Revenue

Gentlemen,

The Right Hon'ble the Governor-General-in-Council has received information that orders have been issued to the Collector of Bhaugulpore to discontinue the collection of the house tax in that district.

2. The orders passed by Government on that subject are dated the 22nd October and are thus expressed.

Despatched to the Board on 29th October.

On consideration of the observations contained in these paragraphs, and of all the circumstances of the case, the Vice-President in Council is satisfied at the expediency of abrogating the tax on houses established by Regulation XV, 1810, and with that view is pleased to direct, that in the first instance the process of assessment at the stations where it may not have been completed be stayed and that the collection of the tax where it may have been commenced be stopped, with exception however of any places at which commotions originating in a resistance to the operation of the tax, may, exist at the period of the receipt of the present orders.

Despatched to the Board on 28th October

3. Under date the 26th October last you were informed by Government of the disturbances which had occurred at Bhaugulpore on account of the above mentioned tax and of the outrage offered to the Collector.

4. Information on the latter point must necessarily have been received by you before the orders regarding the abrogation of the tax, with the exception stated, could have been issued from your secretary's office. It consequently follows that those orders ought not to have been sent to the Collector of Bhaugalpore, or that he should have been expressly informed by you that they were not intended to apply to the district under his charge.

5. The error above noticed is obviously productive of embarrassing consequences. As noticed in the orders of the 22nd October last, the Governor General in Council would consider it highly inexpedient to abolish the tax at places, in which any disturbances might exist, originating in lawless opposition to the enforcement of it. On the other hand to proclaim (as has been done by the Collector) the discontinuance of the tax and then to revive it may create an impression of instability in regard to public measures in the minds of the community (who can not of

course possess the information requisite to enable them to discriminate between the acts of the Government and those of the subordinate authorities) which it is of course desirable to avoid.

6. On consideration however of all the circumstance of the case His Lordship in Council deems it preferable to continue to enforce the collection of the tax in the district of Bhaugulpore than to acquiesce in the abrogation of it, contrary as is manifest to the extent of the orders of the 22nd October last. The Governor General in Council accordingly desires that you will communicate these sentiments to the Collector of Bhaugulpore and direct him to proceed in the collection of the tax, conformably to the provisions of Regulation XV, 1810.

7. It has been above noticed that the Collector had issued a publication signifying the intention of Government to abolish the house tax. But even supposing that the orders above noticed could have been properly constructed to apply to Bhaugulpore, the Governor General in Council does not discern that the circumstances of the case would have required the issue of any publication whatever. The orders in question (as already cited) directed 'that in the first instance the process of assessment at the stations where it may not have been completed be stayed and that the collection of the tax where it may have been commenced be stopped, with exception & c, & c.'

8. It is evident therefore that the Collector had only to discontinue the assessment or collection, according to circumstances, and that the intention of Government would have been fulfilled without any public and general notification, until it should have been deemed proper to rescind or modify Regulation XV, 1810 by the enactment of another regulation, which would then be of course promulgated in the usual manner.

9. On this point I am directed to observe, that the Governor General in Council conceives that few, if any occasions can arise, requiring the Collectors to issue general publication. In cases in which such publication may be requisite it appears to Government advisable, that they should be prepared and previously submitted by your Board to Government according to the nature and circumstances of the case for approval. The Governor General in Council desires that these sentiments may be made generally known to the Collectors subject to your authority.

I have & c.
G. Dowdeswell
Secretary to Government
Revenue Department

Fort William
the 3rd December 1811

II.5. *Advocate-General to Government*

8.1.1812

G. Dowdeswell Esq.,
Secretary to Government,
Revenue & Judicial Department

Sir,

I have been applied to by Mr. Thackeray the Collector of the 24 Pergunnahs to state my opinion as to his right to distrain the goods of European subjects of His Majesty residing in the Mofussil out of Calcutta within his department for the non-payment of the house tax lately imposed by the 15th Regulation of 1810.

2. If such subjects of His Majesty throughout India had not been made subject to the Supreme Court of Judicature established by the king in all civil and criminal suits I should have no difficulty in deciding that he had authority to do so, upon the ground that every man in subject to the law and government of the place in which he lives. But as his Majesty's European subjects have been made answerable in all matters to those courts and as the regulations which have been sanctioned by the king in parliament have been adverted to as made and to be made for the native inhabitants of India and such other persons as are subject to the provincial courts which the European subjects are not as I conceive, I have great difficulty in pronouncing that the property of such of His Majesty's subjects can be distrained for the tax in question.

3. As a matter of revenue it might be contended that if in the present instance the house tax should be enforced by distress no action could lie at the suit of the European in the Supreme Court in consequence of the 21 Geo 3.c.70.s.8, it being according to the Regulations of the Governor General in Council; but if the person distrained were to do any act of violence or to kill a man, whilst endeavouring to make the distress, it would then become material to decide upon its legality and how far his property was liable to be affected in that manner by the Regulation.

4. Feeling the great importance of the point I have thought it right to consult with Mr. Fergusson and Mr. Simpson the Company's standing and junior counsel upon it and they are of opinion that the property of European subjects can not be distrained for this tax. This is my own opinion although very serious and bad consequences may possibly flow from their not

being so subject. It may however be removed by the legislature declaring that all European subjects of his Majesty, his heirs and successors shall, without being liable to arrest or imprisonment be subject so far as regards their houses, lands and personal property situated or being in the provinces, to all such regulations as have been or shall be made respecting the customs, taxes and matters of revenue and to the jurisdiction of the provincial courts and magistrates in respect thereof. And from the great difficulty there must always be in setting forth the justification in pleading it is of importance, that in all action to be brought against the Company, any of their servants, or any person or persons acting by or under their authority or under the regulations or in any ministerial or judicial capacity, the defendant or defendants in such suit or action may plead the general issue and give the special matter in evidence for his or their defence, and that the same if conformable to or authorised by the laws of England, the lawful usage and practice of the country courts, or to or by the regulations in matters subject to them respectively, shall be received in all courts as and for sufficient matter of defence in all such action and actions.

I have the honour to be, Sir, & c
Edward Strettal
8th January 1812 Advocate-General

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II.6. *Government to Board of Revenue in consequence of the opinion of the Advocate-General*

21.1.1812

Ordered that the Secretary write the following letter to the Board of Revenue;

The Board of Revenue

Gentlemen,

I am directed by the Right Hon'ble the Governor General in Council to transmit to you the enclosed extract (Paras 1, 2 and 3) of a letter from the Advocate General and to acquaint you, that on consideration of the legal difficulties which are stated to exist in enforcing payment of the house tax from British subjects residing beyond the local limits of the jurisdiction of the Supreme

Court of Judicature, his Lordship in Council has been pleased to desire that you will instruct the Collector of the 24 Pergunnahs to suspend the collection of the house tax generally in the suburbs of Calcutta.

2. The Governor General in Council has it in contemplation to pass a regulation for abolishing Regulation XV, 1810.

I have & c
G. Dowdeswell
Secretary to Government
Revenue Department

Fort William
the 21st January, 1812

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II.7. *Board of Revenue to Government*

22.1.1812

The Right Hon'ble Gilbert Lord Minto,
Governor-General-in-Council,
Fort William

My Lord,

We have the honour to submit to your Lordship in Council a letter just received from the Collector of Bhaugulpore.

2. As it has not appeared that the European residents were in any respects implicated in the circumstances which rendered the continuance of the house tax necessary at that station, we apprehend the operation of the late orders on that subject was not intended to extend to them.

We have the honour to be
with respect
R. Rocke & c

Revenue Board
the 22nd January 1812

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II.8. *Government to Board of Revenue*

27.1.1812

Ordered that the Secretary write the following letter to the Board of Revenue:

(Extract)

9. Under the circumstances referred to in your letter, his Lordship in Council does not deem necessary that the Collector of Bhaugulpore should enforce payment of the house tax from the Europeans residing in that district.

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II.9. *Passing of Regulation VII, 1812, abrogating Regulation XV 1810*

9.5.1812

The Governor-General-in-Council adverting to the letter from the Hon'ble the Court of Directors in the Revenue Department of the 11th September last, is pleased to pass the following Regulation which he directs to be printed in the manner prescribed in Regulation XLI, 1793 to stand as Regulation VII, 1812.

A.D. 1812 REGULATION VII

A Regulation for rescinding Regulations XV, 1810, and IV, 1811, passed by the Governor-General-in-Council, on the 9th May 1812, corresponding with the 28th Bysaak 1219 Bengal era; the 13th Bysaak 1219 Fussly; the 29th Bysaak 1219 Willaity; the 13th Bysaak 1869 Sumbut; and the 26th Rubbi-in-Senni 1227 Higeree.

Whereas Regulations XV, 1810, and IV, 1811, contain provisions for levying a tax on houses in certain cities and towns in the provinces of Bengal, Bihar, Orissa, and Benares; and whereas the Governor General in Council is anxious to promote the ease and convenience of the inhabitants generally of those cities and towns by relieving them from the payment of the above mentioned tax; the following rule has been passed, to be immediately in force in the provinces of Bengal, Bihar, Orissa and Benares.

II. Regulation XV, 1810, and Regulation IV, 1811, are hereby rescinded.

III

CORRESPONDENCE WITH DIRECTING AUTHORITIES IN ENGLAND

III.1. *Revenue Letter from Bengal in the Department of the Ceded and Conquered Provinces*

12.2.1811

(Extract)

39. With the dispatch, from the Judicial Department dated the 24th November last, your Hon'ble Court was furnished with copies of Regulation XV, 1810, entitled 'a regulation for levying a tax on houses in certain cities and towns in the provinces of Bengal, Bihar, Orissa and Benares'.

40. It is with much concern that we acquaint your Hon'ble Court, that the promulgation of that Regulation and the measures taken in consequence by the revenue officer, to carry its provisions into effect, have excited great discontent and resistance to public authority in the city of Benares.

41. We have the honour to transmit to you, a separate number in the packet, a copy of our correspondence on that subject, with the public officers. These papers are recorded for the most part in the Judicial Department; but we prefer noticing them in this place on account of their immediate connection with an arrangement adopted solely with a view to the improvement of the public revenue.

42. The first communication from the Acting Magistrate on this subject is dated the 25th December last, in which he observes as follows: 'The people are extremely clamorous, they have shut up their shops, abandoned their usual occupations, and assembled in multitudes with a view to extort from me an immediate compliance with their demands, and to prevail with me to direct the Collector to withdraw the assessors until I receive the orders of Government.' The subsequent communications from the

Acting Magistrate are of the same tenor. It is not however to be inferred, that the people proceeded to any acts of open violence. Their design appears to have been to oblige the local officers in the first instance and ultimately the Government to abandon the tax, by a pertinacious adherence to the resolution they had formed of abstaining from labour and by the embarrassments which would naturally arise among a very large population from such conduct. It was evident however that while the people continued collected together in multitudes, with minds bent on effecting the object for which they had assembled, little security existed for the tranquility of the city. It was consequently indispensably necessary to adopt the earliest measures practicable for dispersing the mob, if possible by gentle and conciliatory means, but if not by the employment of the military force of the country.

43. With respect to the Regulation itself (as observed in our orders of the 5th ultimo to the Acting Magistrate) 'we did not discern any substantial reasons for the abolition of the tax on houses in the cities and principal towns established by Regulation XV, 1810, and that with those sentiments we further thought that it would be extremely unwise to sacrifice to riot and clamour a tax, the abolition of which was not dictated by any considerations of general policy.'

44. On mature consideration however of the case, it appeared to us that the tax was susceptible of some modifications as calculated to obviate any just grounds of complaint on the part of those classes of the people, who from their situation in life, were most liable to be affected by its operation. We in consequence directed that the people at Benares should be relieved from a contribution to which they were already subject, on account of the pay of chokeydars (watchmen) and the repair of the gateways, which was not paid by the inhabitants of other cities; that not only religious edifices, in the strict sense of that term, but all houses, occupied by religious mendicants, and persons belonging to the orders of devotion should be exempted from the payment of the tax. And lastly that the same exemption should extend to the houses of the most indigent classes of the people. It is scarcely necessary to add that, we hoped that on the promulgation of the foregoing orders, the inhabitants of Benares would show themselves deserving of the indulgence proposed to be extended to them by the relinquishment of their seditious designs and by a just submission to public authority.

45. After the foregoing review of the origin and progress of the illegal combination at Benares, it is with the highest satisfaction that we draw the attention of your Hon'ble Court to the letter from the Acting Magistrate dated the 28th January last, from which it appears that the populace had dispersed and had yielded an unqualified submission to the authority of Government and its officers. This happy effect is ascribed in a considerable degree to the influence of the Rajah of Benares, and of some other individuals of wealth and character at that city, on whom as will appear more particularly from the orders passed by us on that subject, we have accordingly conferred suitable marks of distinction and approbation.

46. The illegal combination formed at Benares being thus terminated, the trial of the delinquents will proceed in the ordinary course, and the modifications of the tax which it may be proper to adopt, will be discussed through the proper and regular channel of the Board of Commissioners and Board of Revenue. But we cannot close our report on this subject, without noticing the extreme circumspection necessary to be observed in establishing new taxes among the people, whose civil and domestic usages are so closely interwoven with their religious rites, and who are so particularly sensible to any innovation or departure from established custom.

47. With this sentiment we were strongly impressed, when we proceeded to the consideration of the best means of improving the public resources in consequence of some late instructions from your Hon'ble Court. To tax without exciting in some degree complaint or discontent can seldom be the lot of any government, but a tax on houses appeared to us as little liable to create any particular or well founded dissatisfaction as any impost which could be devised, *1st*, because it had long been established in the city of Calcutta and *2ndly*, because this particular species of tax was by no means unknown under the late native Government.

48. It is scarcely credible that the amount of the tax should have been considered a serious burden by any description of people, excepting perhaps the most indigent, some of the religious orders, and individuals who with very scanty means had come from religious motives, to pass the remnant of their days at the city of Benares.

49. Still however we perceive a dangerous and almost universal combination formed against the tax, and consequently

against the authority of Government; the influence of the Brahmins, Faqueers and other employed to excite the people to resistance; the authority of the local officers openly contemned; and no means left to Government, but the employment of the military force of the country to enforce its orders and regulations.

50. The timely submission of the people has happily rendered it unnecessary actually to resort to the last mentioned measure; but when we reflect on the spirit which appears to have actuated the people and to the very serious consequences which might have arisen had the troops been actually employed on this occasion, we are irresistibly led to the conclusion, that no branch of the administration requires more prudence and circumspection, and above all, a more accurate knowledge of the real temper and character of the people of this country than the imposition of new taxes. It is scarcely necessary to add that we shall uniformly keep these principles in view in deciding on any arrangements of this nature, which may in future fall under our consideration, and we can not suppress the expression of our hopes that they may be equally attended to by succeeding governments, or any other authority on whom the delicate duty of imposing new taxes may devolve.

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III.2. *Judicial Letter from Bengal*

29.10.1811

(Extract)

62. We are concerned to inform your Hon'ble Court that some disturbances have occurred at Bhaugulpore, originating in the resistance of the people to the collection of the house tax established by Regulation XV, 1810.

63. The assessment having been conducted the Collector was directed by the Board of Revenue to proceed to the collection of the tax accordingly.

64. Some indication of resistance to the authority of the Collector in the performance of that duty having been manifested by the community, the Judge and Magistrate most injudiciously directed the Collector to suspend the collection of the tax, chiefly on the ground, as we understood the order, that the collection of it had not been commenced at the cities of Patna and Moorshedabad.

65. The Magistrate having been directed to withdraw that order, and the Collector having again proceeded to the discharge of the duty reposed in him with respect to the collection of the tax, he was assaulted and wounded by the populace. It appearing to us on receipt of that intelligence that the outrage thus offered to the Collector and in his person to the Government, was to be traced to the injudicious order above noticed; we for that and the other considerations noticed in our proceedings, deemed it necessary to suspend the Judge and Magistrate from the discharge of his public duties, and to depute an officer of greater firmness and activity to take charge of that appointment. In the meantime however we received information as will appear from the letters, transmitted to you a separate number in the packet, that the authority of Government had been fully re-established in Bhaugulpore, and that the collection of the house tax had been effectually enforced. Under that change of circumstances, we deemed it sufficient to direct the Register to take charge temporarily of the office of the Magistrate. It only remaining at present for us to pass final orders on the conduct of the Magistrate, which we shall consider with the indulgence which we should always be disposed to extend to mere errors of judgement or even want of firmness, when not originating in any improper motive.

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III.3 *Revenue Letter from Bengal*

14.12.1811

(*Extract*)

101. On the same date we took into consideration the expediency of abolishing the tax on houses established by Regulation XV, 1810, your Hon'ble Court was fully informed in our Despatch from the Revenue Department (Revenue Consultations 17th September 1811) of the 12th February last, of the disturbances which had occurred on account of the tax in the city of Benares. Since that period, the Board of Revenue had submitted a statement showing the amount of the assessment in those towns, where the assessment had been completed. From that statement it appeared quite clear, that the tax could not be an object to Government except at the city and the suburbs of Calcutta. Indeed the whole produce of the tax was only estimated at about

Rs.3,00,000 and subsequently experience has not shown that its produce was materially underrated. Considered therefore as a source of revenue, the pecuniary advantages arising from it to Government was trivial compared with the general dissatisfaction which it has occasioned, the actual opposition which it had excited at Benares and Bhaugulpore, and the apprehensions that the same disposition might manifest itself in similar excesses at other stations. Arguments indeed were not wanting for the continuance of the tax, founded on the necessity of supporting the authority of Government and repressing the spirit of resistance which had been manifested to the exercise of its legitimate powers. The inhabitants of Benares however had long ago yielded an unconditional submission to public authority: and exclusively of that consideration it will be observed, that we neither intended to proceed to the immediate abolition of the tax, nor to extend the benefits of that measure to any places at which (to use the terms of our instructions to the Board of Revenue) 'commotions originating in a resistance to the operation of the tax might exist at the period of the receipt of those orders'.

102. The house tax being established within the city of Calcutta, we did not discern any substantial reasons for exempting the suburbs of the city from its operation. The former is separate from the latter in some parts only by a street and in others only by an imaginary line.

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III. 4. *Revenue Letter from Bengal*

30.10.1812

(Extract)

111. The proceedings of the annexed date contain a report from the Board of Revenue respecting the receipts and disbursements on account of the house tax beyond the limits of the town of Calcutta, which tax for the reasons stated in the 101 and 102 paragraphs (9th May 1812 Paras 40-5 n 114) of our Despatch from the Revenue Department of the 14th December last we had directed to be abolished. The collections are stated at Rs.5,308.5. The disbursements at Rs.16,040.6, leaving a net charge to Government of Rs.10,732.1.10.1

112. We have ordered some arrears to be written off as irrecoverable for the particulars of which we beg leave to refer you to the proceedings of the dates specified in the margin. (Revenue Consultations dated 28th March 1812, 4th April 1812, 9th May 1812, 15th June 1812, 29th August 1812)

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III.5. *Secret Revenue Despatch to Bengal*

16.9.1812

Our Governor General in Council at Fort William in Bengal

1. We have taken into our consideration the tax on houses in certain cities and towns in the provinces of Bengal, Behar, Orissa and Benares (Disturbances in Benares occasioned by the introduction of the house tax into that city. Regulation XV 1810) levied by you in virtue of a Regulation passed on 6th October 1810, together with the whole of your communication on the subject to the 11th February 1811.

2. This tax appears to have originated with the Committee of Finance (Letter Committee of Finance 27.10.1810 in Revenue Consultations of 1st April 1809) who stated that among 'the various modes of taxation which had been under their consideration the only new impost which appeared proper to be recommended to the attention of Government was a tax upon houses', that it was not unknown to the natives, a tax of the same description having been levied at different times and in diverse places under various names, that it was not necessarily obnoxious to the prejudices of the natives and that rules for its collection similar to those established for realising the assessment, of the town of Calcutta were not likely to give offence or be attended with peculiar hardship.

3. The Committee estimated that the tax on property levied in Benares, Patna, Moorshedabad, Dacca, Mirzapoor, Burdwan, Gya and other large towns in Bengal, Behar and Benares as well as the suburbs of Calcutta might be expected to produce a sum exceeding three lacs of rupees and they stated their opinion that at a future period the tax might be extended

to Furruckabad, Agra, Allahabad and other cities of the Upper Provinces though for the reasons assigned in their letter they did not advise its immediate extension to those places.

4. The promulgation of this tax appears to have excited considerable agitation and we find that it soon assumed an alarming aspect. People of all descriptions assembled in vast multitudes consisting of the inhabitants not only of the town but of neighbouring country. All the shops were shut and business was for many days so much at a stand that nothing except grain was procurable in the city. Numbers intimated a design of proceeding to Calcutta. The endeavours of the Acting Magistrate to allay the irritation and persuade the people to return to their ordinary pursuits and wait the determination of Government proving ineffectual and the public tranquility being endangered, the Acting Magistrate deemed it necessary to call on General Macdonald, the officer commanding the district to prepare for any probable emergency.

5. We deem it most fortunate that the people though clamorous and pertinacious did not proceed to any acts of outrage or open violence and that military coercion was not resorted to, to disperse the assemblage; for we agree with the opinion expressed by Major General Macdonald that if any blood of Brahmins or of religious orders had been spilt, the consequences might have been most serious.

6. On the modifications which you found it necessary to make it is unnecessary for us now to enter in as much as we find from advices recently received that you had determined to abolish the tax in question not only at Benares but also in the other cities and towns in which it had been established.

7. From the manner in which the Committee of Finance have stated that their observation of the house tax in Calcutta had suggested their recommendation for the establishment of a tax upon the houses of all the cities and great towns in Bengal, Behar, Orissa and Benares and at some future time in the Upper Provinces and from your reasonings in consequence it might be inferred that the tax in Calcutta had never occasioned any dissatisfaction among the natives.

8. But on reference to the records of 1789, we find on the contrary that a great dissatisfaction existed among the native inhabitants of Calcutta on account of this tax and that they petitioned Government on the subject. This petition not being entered on the records, as it ought to have been, we do not know

the allegations it contained. But we perceive by a letter from the clerk of the Commissioners to the Government that a number of the native inhabitants of Calcutta having assembled at the Commissioners house several of them were called in on which occasion they observed that they object to 'paying any tax whatever'. (Dated 22.4.1789 General Consultations 24.4.1789) The enforcement of the tax we understand, left a considerable degree of discontent among the natives and that many of them in consequence fixed their habitations without the limits of the town in those places you call the suburbs of Calcutta which you have subjected to the new tax of 1810.

9. Neither the Committee nor yourselves have adverted to two material distinctions between the old and the new tax. *1st* that the tax on Calcutta is levied not for the increase of the revenues of Government but solely for a municipal purpose. That the sum raised by it is disbursed upon the town and the inhabitants derive a benefit in the improvement, of the streets and general healthiness of the place. As an endeavour to conciliate the natives to that tax the Government ordered the monthly accounts of the Commissioners to be published thereby not only showing the people that the money was wholly expended on the purposes for which it was raised but also giving them the means of knowing that it was faithfully and judiciously expended, a point in which it is probable some question had been started. *2nd* that Calcutta is a town governed by British laws and in many respects differing from any other place in Bengal or the contiguous provinces. It is the seat of our chief Government; the inhabitants of the greatest authority and consequence are Europeans: most of the principal houses belong to or are rented by Europeans, all the natives of consideration and property are either immediately or relatively connected with our Government or with Europeans or are descended from persons who at no very distant period have been so connected. With the exception of the persons of the above descriptions the natives of consequence and property are from physical and moral consideration averse to reside in Calcutta. That under European example and influence a tax like the one in question was certainly more likely to be submitted to, in Calcutta, than in any other place.

10. The Moothurfa (or professional licence) one of the sayer collections which were abolished by Earl Cornwallis' Government we conceive can never have been mistaken for a house tax and

in regard to the tax termed Khanashumaree (i.e. enumeration of houses) to which both the Committee of Finance and yourselves refer to show that the natives in that part of India have been accustomed to a tax upon houses, we do not know any trace upon our records. Nor have our enquiries been attended with any distinct information on the subject. There may have existed some trifling or partial tax of this nature for some particular purpose but that there was a general one which might be considered as a precedent for the house tax you levied we cannot admit without more particular information.

11. We deem it extremely unwise to do any thing which by creating irritation and disgust in the minds of a large part of the natives may weaken their confidence in our justice and without dilating on this topic we must observe that your own reflections as expressed in your letter of the 11th February 1811 are most judicious. You say 'you can not close your report on the subject without noticing the extreme circumspection necessary to be observed in establishing new taxes among a people whose civil and domestic usages are so closely interwoven with religious rites and who are so particularly sensible to any innovation or departure from established custom' and you justly observe in another passage that 'no branch of the administration requires more prudence and circumspection and above all a more accurate knowledge of the temper and character of the people of India than the imposition of new taxes'.

12. There is a tax now in existence in the Deccan and the Carnatic which though it may have some affinity with that which you have established is also materially different from it. The tax to which we allude is not regulated by the rent, for their houses and shops are hardly ever rented. It is in some cases called the ground rent of the house, in others the equivalent of a certain number of days labour; in fact it is of the nature of an income tax.

13. Our sentiments on the subject of a house tax at Madras were communicated in paragraphs 63-66 of our letter of 23rd July 1806, copy of which was transmitted to you according to the usual course of correspondence.

14. We must observe however there is this striking difference in the case viz. that the Government of Fort St. George conceiving the town duties to be vexatious had proposed to abolish them and substitute a house tax in place of them. But you in the month of April 1810 impose a heavy string of town duties on the most necessary articles of life and within six months also lay

on a house tax. We desire your particular attention may be given to our opinions as communicated to the Government of Fort St. George in our before-mentioned letter. This letter we presume could never have been seen by the Committee of Finance who suggested the tax or by the Board of Revenue who in obedience to your directions framed the Regulation. And we are concerned to observe that the instructions it contained that the project of the house tax should not be carried into execution without our express sanction must have escaped your recollection when you resolved upon adopting and enforcing the tax in question. To these observations we have to add that the introduction of a new tax should always be preceded by a careful investigation whether or not it was levied under the former governments, whether it was abolished and for what cause or whether it fell gradually into disuse and how long it has been discontinued: for we hold it to be a principle highly important to be kept in view that when the state of the public resources calls for an increase of revenue in India that it is decidedly preferable to seek that increase in the renewal of old than in the establishment of new taxes.

15. There are two points connected with the details of the measures now under consideration which we shall here particularly notice to you and this we do for the purpose of engaging your future circumspection in any cases which may be analogous. The one is the levying of 10 per cent upon shops instead of 5 the general rate upon houses. This appears to be oppressive and vexatious; supposing even that the general rate of tax were judicious, because if the business of the shop were considerable, Government would obtain at 5 per cent its fair ratio of advantage by the increased value of the premises and if the business were trifling the whole profit on the wares which might be vended might not equal the increased rate of the tax. The other point is our observing in the letter from the Collector of Benares dated 26th November 1810 that he expressed his hope that if a faithful account of rents received and paid were furnished ‘it would not be necessary for his officers to make any entry in order to ascertain the rate of taxes to be levied by personal surveying of the premises’.

16. We must signify our expectation that the necessity here contemplated as possible may not occur because besides the unpopularity occasioned by the visits of the revenue officers in private houses the peculiar delicacy of approaching to the secluded part of the Indian dwellings must ever be carefully remembered.

17. It remains for us now to express our satisfaction in the judicious, temperate, cautious and firm conduct of our servants at Benares, viz:

> Mr Bird the Acting Magistrate whom we mention first as having taken the most conspicuous part,
>
> Major General Macdonald with whose prudence and judgement we are particularly gratified,
>
> Mr Brooke, the chief judge of circuit,
>
> Mr Glyn, Assistant to Mr. Bird,
>
> Mr Salmon, the Collector.

18. We have also to express our approbation of the conduct of the Raja and of the other natives of consequence and influence mentioned to you and are glad to perceive you have distinguished their meritorious services by marks of your favour.

19. We think it necessary upon an occasion on which we have to recommend so particular an attention to the opinions and even to the prejudices of the natives to desire that you will at the same time take every proper opportunity to assert the principle laid down by Lord Cornwallis in his instructions to the Board of Revenue, 11th June 1790, namely 'that the imposition and collection of internal duties has from time immemorial been admitted to be the exclusive privilege of Government', a principle which he fully established and expressly reserved as a right upon the promulgation of the permanent settlement and the abolition of the sayer duties when he emphatically announced in section 8 clause 8 of Regulation I in the year 1793 that 'a full compensation having been granted to the proprietors of land for the loss of revenue sustained by them in consequence of the abolition of them (the sayer duties) he declared that if he should hereafter think it proper to establish the sayer collections or any other internal duties and to appoint officers on the part of Government to collect them no proprietor of land would be admitted to any participation thereof or be entitled to make any claim for remissions of assessment on that account'.

20. In our Revenue letter of 20th May 1799 we observed as follows:

> We are naturally led by the consideration of this subject to reflect on the propriety of directing you to turn your thoughts to the present state of the Company's resources and expenses in India particularly those under your more

immediate superintendence. That grand source of Revenue in Bengal namely the land is unalterably placed at a certain amount not to be increased in consequence of any permanent augmentation of establishments how necessary so ever or of any other contingency. Since the completion of this important arrangement so highly beneficial to the proprietors of landed property the adoption of certain military arrangements has considerably increased the amount of the permanent charges and various circumstances rendering an augmentation of the native troops and the introduction of several additional regiments of his Majesty's, necessary to the preservation of our dominions have swelled our military disbursements to an enormous amount; the means of defraying the additional expenses without adding to the Company's debts deserve your attention. From the before mentioned arrangement for fixing the tribute from the land and from the several judicial institutions which followed for the security of private rights and property and individual protection which latter were effected at an expense to the Company of upwards of 34 lacs of rupees per annum, we have every reason to believe that the inhabitants of our provinces are in general experiencing, an unexampled and increasing degree of prosperity and happiness. When such blessings to a country are derived from the wise and salutary measures adopted by the protecting power it is natural to expect that those in the enjoyment of them should contribute to its preservation on which their own is so intimately involved. The increase of wealth, commerce and population evidently flowing from the above arrangement must naturally suggest to you who are on the spot, the modes in which the public might be brought to contribute towards the exigencies of the state. The customs, the stamp duties and the tax on spirituous liquors we understand may admit of considerable improvement either in the mode of collection or by the variation of the rates, and other resources of revenue may probably be devised without injury to the state, oppression to the people or violations of the principles on which the permanent settlement of the lands was made. We therefore recommend this very important subject to your most serious attention.

21. The extent of the sacrifices of revenue and the heavy charges which were incurred upon the introduction of the permanent settlement of the land revenue and the judicial system,

the accumulating expenses attending those arrangements and the long continuance of internal peace and prosperity in the provinces of Bengal and Behar arising in a general measure out of the burdensome wars in which we have been involved in other parts of India will warrant us fully in calling upon our native subjects to contribute to the relief of the state, now heavily expressed by a great load of debt, incurred by those wars, and which we had only contemplated as a contingency to be provided against in our letter of May 1799. The stamp duty established by you appears to be a measure well calculated to improve our revenues, and we have therefore read with great satisfaction in your Revenue Consultations of the 9th October 1806 that whatever has been received under this head in the Conquered Provinces (where the Regulation requiring the issue of stamp paper had not then been promulgated) 'is you suppose to be ascribed to individuals entertaining an opinion that the stamped paper gives great validity to documents of the above kind than if they were written upon plain paper'.

22. With this opinion of your Board of Revenue before us, and without any observations from you upon the subject we are unable to conjecture what were the reasons which induced you to except from the stamp duties the receipts upon all payments to or from Government thereby restraining its operation where it might have been made considerably productive. If this should have proceeded from an opinion that it was advisable to introduce the measure gradually we have only to express our hope that you may soon consider yourselves at liberty to remove the restriction we have alluded to, and that when you shall have done so, you will make it the means, rather in the shape of regulation than of tax, of procuring for the ryots and undertenants the security of pottahs, which though required under the regulations that were established at the time the permanent settlement was promulgated, have not we apprehend been generally conveyed to them.

23. As at no distant period it may be found necessary to look at some other source for augmenting the public revenue, we recommend that your attention may be particularly directed to the best mode for introducing a duty upon Betel Tobacco to operate throughout the provinces under your presidency, and to be calculated upon a principle as moderate as may be deemed consistent with the object of its imposition and at all events not to bear heavily on the consumer. These articles may properly be classed under the denomination of intoxicating drugs. They are of such general consumption that like salt they may be

considered to be necessaries of life, and therefore it may be supposed that under proper regulations they might in time be brought to yield a considerable revenue.

24. The realisation of an increased revenue from the above mentioned articles, either by a monopoly or the imposition of a duty, is a subject to which we particularly called the attention of the presidency of Fort St. George in our Revenue Despatches to that Government of the 28th August 1804 and 23rd July 1806. We have also more recently conveyed to the Madras Government in a letter in the same department of date the 24th April 1811 our sentiments on this subject on the occasion of taking into our consideration their proceedings since the year 1806 with reference to the object in question. We are desirous that you should apply to the Government of Fort St. George for a copy of the correspondence here referred to as well as for a copy of their proceedings connected therewith, as they may prove useful to you, more particularly the reports of the Collectors on any measures which you may deem it expedient to adopt for adding to the public resources by an extended system of taxation with respect to betel and tobacco. We are perfectly aware that difficulties may exist under your presidency, as well as in the territories on the coast as to the general application of any uniform measure with a view to that object throughout the possessions subject to your immediate authority. A modification of principle and in some cases a complete difference of system may be necessary in order to adapt and accommodate itself to local circumstances and peculiarities from a due attention to which we might hope that in the course of time you may be enabled to exempt from the town duties not only rice, wheat and barley upon which article you have very properly abstained from enforcing that duty but that in the event of the proposed duty on betel and tobacco being generally established you may be able to exempt those articles also from the operation of the town duties.

We are
Your affectionate friends,
Hugh Inglis [and others]

London,
the 16th September 1812

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III.5 (1-5) *Correspondence between Court of Directors of the East India Company and Board of Commissioners for the Affairs of India regarding the Secret Revenue Despatch to Bengal dated 16.9.1812 pertaining to the House Tax.*

III.5 (1) *Board to Court*

India Office,
Whitehall,
15th June 1812

(Extract)

I am directed by the Commissioners for the Affairs of India to return the Bengal Secret Revenue draft, No.218 with alterations and additions.

Many of the alterations which the Board have made therein are verbal: but there are several which require some explanatory observations. The first of these is in the omission of paragraphs 18 to 20 and part of 21: and the substitutions of four others, which leave out altogether the instructions contained in the 18th cancelled paragraph of the Court, directing the Bengal Government to consider 'whether the whole or a part of the sayer duties might not be restored'. These duties, though abolished previously to the permanent settlement of the lands, have been since re-established on modified principles. The Board here particularly refers to the Government customs inland, the town duties and the abkarry revenue, as at present existing, which they consider to constitute material branches of the old sayer collections.

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III.5 (2) *Board to Court*

Whitehall,
14th August 1812

Sir,

I am directed by the Commissioners for the Affairs of India to request you will return to me Draft No.218 which was forwarded to you from this office on the 15th June last together with the letter that accompanied the same, it being the wish of the Board to make some alterations therein.

I have the honour to be & c
John Bruce

To:

W. Ramsey Esq.

III.5 (3) *Letter from Mr.Ramsey*

Mr. Ramsey presents his compliments to Mr. Bruce and, in consequence of his letter of the 14th instant, returns him Draft No.218.

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III.5 (4) *Board to Court*

Whitehall,
20th August 1812

Sir,

I am directed by the Commissioners for the Affairs of India to acknowledge the receipt of the returned Draft No.218 of the last season, and to remind you that the letter which accompanied it on the 15th of June last has not been returned.

I am, Sir & c
William Ramsey Esq. Thos Per Courtenay

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III.5 (5). *Commissioners for the Affairs of India to the East India Company regarding changes in the draft of the Secret Revenue Despatch to Bengal of 16.9.1812.*

India Office
Whitehall,
9th September 1812

Sir,

I am directed by the Commissioners for the Affairs of India to return you the Bengal Secret Revenue Draft No.218, with alterations and additions, as finally approved by the Board, several of which are verbal only; but there are others, which require some explanatory observations.

The first material alteration is the omission of paragraphs 4-6, the latter part of para 7, paras 8-10, paras 12-24. The Board have omitted the paras in question, in consequence of the information contained in the Bengal Revenue Despatch of the 14th December last, and which has reached England since the Draft was prepared, and has noticed the intention of the

Supreme Government to abolish altogether the house tax, except in the city and suburbs of Calcutta. This has, in the opinion of the Board superseded the necessity of entering so much into detail with respect to the proceedings which occurred at Benares on the establishment of the tax in that city, as might otherwise have been requisite, and it also renders several of the paras, here referred to, now inapplicable written as they were under the impression that the impost was still levied.

The Board have also omitted the latter part of the paragraph 16, as being rendered unnecessary by the passage immediately preceding that cancelled; in lieu of which they have substituted a passage, which is little more than a transposition of what has been expunged in para 19 and 20 on the importance of duly attending to the habits and prejudices of the natives in the introduction of new taxes.

The addition to paragraph 17, referring to the Court's sentiments, as signified to the Government of Fort St. George, with respect to a house tax, within the territories subject to its authority, is also in great measure a transposition of the first part of the paragraph 21, which has been expunged.

The Board's reason for having omitted the part of paragraph 18, directing the Bengal Government to consider 'whether the whole or a part of the sayer duties might not be restored' is, that these duties, though abolished previously to the permanent settlement of the lands, have since, in some instances, been re-established on modified principles. The Board particularly refer to the Government Customs Inland, the Town Duties, and the Abkarry Revenue. The remaining part of the paragraph in question, relative to the imposition of new taxes, has been inserted at the end of paragraph 21.

It has further been thought proper by the Board to cancel the 28th paragraph, so as to leave it to the free discretion of the Government abroad, to restore or not the Phatuckbundee, as they may see fit.

The heavy expenditure attendant upon the system of internal administration under the Bengal presidency which induced the Court of Directors to prepare the paragraph that has been expunged respecting the sayer duties has led the Board at the end of the draft to call the attention of the Governor General in Council to the policy of realising an additional revenue by an extension of the stamp regulations in the manner proposed in those paragraphs, and by the adoption of an extended system of taxation with respect to betel and tobacco. These are articles of luxury and of general consumption, and a small duty upon them, operating throughout the provinces, might, under proper regulations, be gradually improved into a very productive source of revenue. The Board express themselves with the more confidence upon this subject in consequence of the opinion recently conveyed by the Government of Fort St. George in their Revenue Letter of the 29th February 1812, wherein, adverting to the contingency of remissions becoming necessary under the system of village leases, they observe that 'whatever may be the amount of those occasional remissions, the reinstitution of the licences for the sale of betel and tobacco' which, as they state, 'was in the opinion of Col. Munro relinquished without any adequate reasons, would certainly produce a revenue more than sufficient to cover these eventual remissions'; and they add that they had in view the immediate re-establishment of them.

I have the honour to be, Sir,
Your obedient, humble servant,
Thos. Per. Courtenay

To
W.Ramsey Esq.

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III.6. *Two of the original paragraphs of the Court of Directors expunged by the Board of Commissioners in Secret Revenue Draft No.218. (Original draft ends with paragraph 28 which suggests restoration of Phatuckbundee as existing previously. Original draft is dated 23 May 1812.- Editor)*

23.5.1812

Having most attentively and seriously deliberated upon the whole of the subject as you must be convinced from the present discussion we should have felt inclined to direct the abolition of the house tax. But from an apprehension we entertain that this measure might be mistakenly considered as originating in a disposition on the part of your Government to yield to the influence of popular clamour, and that of thus exciting in the minds of the natives an expectation of still further concessions, we might at length be called upon to relinquish entirely the very principle of taxation, by which we looked for an augmentation of our resources by the institution of duties upon such articles as might from time to time be thought to afford a fair prospect of revenue, without their being felt as oppressive by the native inhabitants. We are willing therefore to hope that under the modifications which you had it in contemplation to adopt, calculated in your opinion to obviate any just ground of complaint against the house tax, the same has, since the date of your letter of the 12th February 1811, been quietly collected: but if not withstanding these modifications, the house tax shall have continued to be obnoxious to the feelings and prejudices of the natives and productive of further dissatisfaction and clamour, we think you ought to adopt the most speedy measures for its repeal, and which you think it will be possible for you to carry into execution, without compromising in too conspicuous a manner the authority of Government.

This consideration has alone restrained us from giving more positive orders upon this subject, since we think that this is one of those cases where the general opinion of the authorities at home being known, the execution of that opinion must be committed to the hands and to the discretion of the local administration of India.

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III.7. *Revenue letter from Bengal: Secret Revenue*

28.2.1815

(Extract)

4. In the above mentioned Despatch, your Hon'ble Court appears to have had two distinct objects; first, to record your sentiments on the tax on houses which had been established in the year 1810, but which has been since abolished; and secondly, to state such suggestions as had occurred to you for the improvement of the public resources.

5. With regard to the former point, it cannot be in any respect necessary for us to defend a measure of the preceding Government: still however the observations of your Hon'ble Court suggest some reflections which we would wish to offer for your consideration.

6. A tax on houses is certainly nothing less than novel in the general history of taxation. In this country it did not violate any acknowledged right of the natives, or offend any of their religious or civil usages. Some dissatisfaction will always be

experienced from the operation of new taxes; but it is impossible, judging a priori, to foresee in what mode such dissatisfaction will manifest itself, or to what extent it may be carried. Considering the question in this point of view, the consequences, which arose from the tax on houses, were such as in our apprehension no human prudence could foresee, and such as may be again experienced from any measures, the tendency of which is to convert part of the private wealth of individuals into a public resource for the state. But your Hon'ble Court are both too enlightened and too equitable to judge of any arrangement of that nature merely from the event. We do not mean by these remarks, to question the propriety of the abrogation of the tax in question. On the contrary we think that it was wisely repealed, not because it infringed any established principle of taxation or violated any of those local usages, to which it is so essential to attend to in this country; but because the produce of it was not actually worth contending for through so much heat and irritation: It had only been estimated by the Committee of Finance at Rs.3,00,000 per annum and there were grounds to believe, that the net revenue would have even fallen short of that sum.

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SOURCES OF DOCUMENTS

India Office Records

1. Board's Collections, F/4/323, Collection No. 7407 Documents I.A.1. to I.A.19 and III.1 and 2.
2. Bengal Criminal Judicial Consultations Range 130 vol. 27 No.2 of 11 January 1811 and No. 17 of 18 January 1811: Documents I.B.1 and 2, I.C.1 and 2.
3. Bengal Criminal Judicial Consultations Range 130 vol 29 No. 39 of 22 February 1811, No.63 of 6 March 1811 and No.3 of 6 March 1811: Documents I.A.20 to I.A.24, and I.D.1 to I.D.2.
4. Bengal Criminal Judicial Consultations Range 130 vol 39 No.3 of 15 October 1811 and No. 39 of 29 October 1811: Documents I.E.3, I.E.5 to I.E.12, and I.E.15 and 16.
5. Bengal Criminal Judicial Consultations Range 130 vol 40 No.3 of 12 November 1811 and No.13 of 19 November 1811: Documents I.E.13 and 14, I.E.17 to I.E.21 (a).
6. Bengal Criminal Judicial Consultations Range 130 vol.45: Documents I.E.24 and 25.
7. Bengal Criminal Judicial Consultations Range 130 vol.48: Documents I.E.26 and 27.
8. Bengal Revenue Consultations Range 55 vol. 44 No.3 of 15 October 1811 and No.6 of 29 October 1811: Documents I.E.1 to I.E.2 (a), I.E.4, and II.1 to II.3.
9. Bengal Revenue Consultations Range 55 vol. 45: Document II.4.
10. Bengal Revenue Consultations Range 55 vol. 47 No.4 of 13 January 1812, No.1 of 21 January 1812 and No.13 of 27 January 1812: Documents I.E.22 and 23, and II.5 to II.8.
11. Bengal Revenue Consultations Range 55 vol. 50 No.37 of 16 May 1812: Document I.A.25.
12. Bengal Civil Judicial Consultations Range 148 vol. 75 No. 24 of 9 May 1812: Document II.9.
13. L/E/3/17 (for Bengal Revenue Letter of 14 December 1811): Documents III.3.
14. L/E/3/18 (for Bengal Revenue Letter of 30 October 1812): Document III.4.
15. L/E/3/19 (for Bengal Secret Revenue Letter of 28 February 1815): Document III.7.

16. L/F/442 (for Secret Revenue Despatch to Bengal of 16 September 1812): Document III.5.
17. F/3/26 (for Board-Court Correspondence about Secret Revenue Despatch to Bengal dated 16 September 1812): Documents III.5 (1-5) and III.6.

West Bengal State Archives

Bengal Judicial Criminal Proceedings: 8 February 1811: Original Consultations No. 6: for extracts from petition on pages 18-19.

GLOSSARY

(Most of the following explanations have been taken from H.H. Wilson's *A Glossary of Judicial and Revenue Terms*, published in 1855. Others are based on the present writer's own understanding of them)

Abkarry:	Revenue from duty on intoxicants, etc.
Amlah:	The collective head native officers of judicial or revenue court under the European judge or collector.
Bazars:	Shopping areas, markets.
Bunds:	Widespread non-cooperation and resistance to government, particularly in Maharashtra
Brahmins:	Hindu caste of scholars, priests and ascetics.
Cherucoons:	Chief peons
Chokeydars:	Watchmen.
Choudries:	Heads or representatives of areas or groups.
Chubootra:	Place where the head of the police is usually stationed; a police office or station.
Chunam:	Lime
Clashy:	A tent-pitcher, a matross.
Cooley:	Labourers
Coss:	A distance of about 2 miles.
Cutcherry:	A law court; a place where any public business is transacted.
Cutwall:	Chief officer of police for a city or town.
Cutwally:	Office of a *Cutwal*.
Dhurm Puttree:	Communication binding the recipients by a religious oath to join or conform to some commonly arrived decision.
Dhurna:	Sitting usually at the door of a house as a protest against some wrong doing by the particular householder. The person or persons protesting were to observe strict

	fast and consequently the alleged wrongdoer was expected to fast also and abstain from his usual occupations and amusements.
Dingy:	A passage boat.
Dubass:	A native man of business in the service of a European; one who speaks two languages.
Durkhast:	An application.
Durzees:	Tailors.
Dusserah:	A major Hindu festival celebrated in September or October signifying Rama's victory over Ravana.
Dustucks:	A permit, a passport; also a writ, a warrant.
Faqueers:	A religious mendicant, usually a Muslim by religion.
Gentues:	Hindoos (originally applied to Telugu-speaking people by Europeans).
Gomastah:	An agent; a steward employed to collect rent, money, etc.
Goshains:	A particular Hindu religious order.
Hartal:	Shutting up or closing all the shops of a market as a passive resistance to exaction.
Hujams:	Barbers
Jagirdar:	Holder of an assignment of revenue; in this instance seemingly of a large one.
Jolahirs:	Weavers
Jummabundy:	A statement exhibiting the particulars of the public revenue, its amount and how assessed.
Kahars:	Water-carriers, palankin-bearers, etc.
Khelaut:	A dress of honour.
Kist:	The portion of annual revenue assessment to be paid at specific periods in the course of the year.
Koonbees:	An India-wide numerous Hindu caste of peasants or those engaged in agriculture.

Koor:	Self-immolation as a protest.
Korees:	A caste of growers of vegetables, etc.
Lac:	A hundred thousand (1,00,000).
Lohars:	Blacksmiths (perhaps also applied to manufacturer, of iron and steel who seem to have been fairly numerous and powerful at this period).
Mahajuns:	Merchants and bankers.
Mahrattah:	Originally residents of Maharashtra; in this instance apparently refers to warriors from amongst them living in Benares.
Malgoozaree:	Revenue assessment.
Mehulla:	A locality or a ward in a town or city.
Mistrees:	Mechanics
Mofussil, mofusil:	Usually used for non-urban areas.
Mohullahdars:	Government appointed persons responsible to the police for providing information about the respective *mehullas*.
Moosuddies:	Writers, clerks; in this instance seemingly assessors or collectors of tax also.
Mujlis:	An assembly.
Mullahs:	Boatmen.
Naib:	A deputy.
Nazir:	A supervisor, or officer of court charged with the serving of process, etc.
Nizamut affairs:	Department of police and criminal law.
Peons:	Footmen foot soldiers; inferior officers of police or customs, or courts of justice.
Pergunnahs:	A demarcated area of many villages several of which went to constitute a *chakla* or *zila*, i.e. a present-day district.
Perwannahs:	Orders, written precepts, permits or passes.
Phatucks:	City or *mehulla* gates.
Phatuckbundee:	Contributions for the expense of looking after the *phatucks*, i.e., watch and ward of the city.

Punch:	Council of any caste, group, or area.
Pottahs:	A document specifying the conditions under which land is held by a tenant, etc.
Rajpoots, Raujpoots:	A warrior caste amongst the Hindus.
Ryots:	Peasants.
Sayer:	Sources of revenue other than agricultural land.
Shastra:	Scripture, works of authority.
Sooltauns:	Kings.
Syce:	Driver of a horse-carriage, a coachman.
Tallua Nallah:	Name of a locality in Benares.
Talook:	An estate, including many villages.
Tahsildar:	Government officer incharge of a *tahsil* (part of a district) for revenue and law and order functions.
Thannahdars:	Officers incharge of *thannahs* (police stations); also employed in enforcing payment of government revenue.
Traga:	Self-immolation as a protest.
Urzee, arzee:	Representation; a petition.
Vakeel:	A lawyer; in this instance a government pleader.
Zillah:	A district.

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DHARAMPAL: LIFE AND WORK

Born in 1922, Dharampal had his first glimpse of Mahatma Gandhi around the age of eight, when his father took him along to the 1929 Lahore Congress. A year later, Sardar Bhagat Singh and his colleagues were condemned to death and executed by the British. Dharampal still recalls many of his friends taking to the streets of Lahore, near where he lived, and shouting slogans in protest.

Around the same period, there were excited discussions, especially in school, about whether the British should leave India. Some were against *swaraj* because they feared invasion of the country by Afghan tribesmen and others. With many others his age, Dharampal tended more and more towards the *swaraj* option. Though he underwent western education throughout school and college, his animosity to British rule grew year by year. By 1940, he had started to wear *khadi* regularly—a practice he follows even now—and even tried to take to spinning the *charkha* for a while.

In 1942, he was present as a fervent spectator at the Quit India Session of the Congress in Bombay and he thereafter joined the Quit India Movement. He was active in it till he was arrested in April 1943. After two months in police detention, he was released but externed from Delhi.

Dharampal recalls he was one of countless people who believed that once the British were gone, India would be rid of its misfortunes, particularly its state of disorganisation and impoverishment.

In August, 1944, he was introduced to Mirabehn by his friends. He joined her soon thereafter, at what came to be known as the Kisan Ashram, situated midway between Roorkee and Haridwar. He stayed with Mirabehn, with occasional absences in Delhi (1947-48) and England (1948, 1949) till about 1953 when she retired, first to the Himalayas, and a few years later, to Europe. But the contact stayed. Dharampal met her again for the last time in July 1982 in Vienna, about two weeks before her death. On that day, they talked together for some 6-8 hours in the quiet of the Vienna woods.

Earlier, during 1947-48, Dharampal had come in close contact with Kamaladevi Chattopadhyaya, Dr. Ram Manohar Lohia, and with numerous younger friends in Delhi. He was then associated with an attempt at cooperative rehabilitation of refugees from Pakistan. (He was a member of the Indian Cooperative Union which was founded in 1948 with Kamaladevi as its president.)

The following year, while in England, Dharampal got married to Phyllis who was English. Afterwards, they both decided to live in India. On their way back, they spent some time in Israel and visited a few other countries as well. In 1950, the community village of Bapugram in the Pashulok area, near Rishikesh, began to be formed. Dharampal and

Phyllis lived in it till 1953. He returned to England with his family in 1954.

He was back in Delhi again from early 1958 to 1964 with his wife, son and daughter. He now took up the post of General Secretary of the Association of Voluntary Agencies for Rural Development (AVARD); Kamaladevi was its first president. Soon thereafter, Jayaprakash Narayan agreed to be the president of AVARD. (He remained president till about 1975.)

For about two years (1964, 1965) Dharampal worked with the All India Panchayat Parishad (A.I.P.P.) as Director of Research and spent more than a year in Tamilnadu collecting material that was later published as *The Madras Panchayat System*. Earlier, in 1962, he had already published a smaller book containing the proceedings of the Indian Constituent Assembly relating to the discussion on the subject of "The Panchayat as the Basis of India's Polity".

From Madras, for family reasons, Dharampal once again moved to London in early 1966. His son had met with a serious accident.

By then he was also keen on a detailed study of the Indo-British encounter during the 18th and 19th centuries. This time he stayed on in London till 1982, but visited India in between. In England, he did not have much of an income. There was also a family to support. But notwithstanding all this, he became a regular visitor to the India Office and the British Museum and spent most of his time poring over the archives. Photocopying required money. Oftentimes, old manuscripts could not be photocopied. So he copied them in long hand, page after page, millions of words, day after day. Thereafter, he would have the copied notes typed. He thus retrieved and accumulated thousands of pages of information from the archival record. When he returned to India, these notes—which filled several large trunks and suitcases—proved to be his most prized possessions.

From around 1958, Dharampal had developed an association with Sevagram, especially because of Annasaheb Sahasrabudhe. He spent around a month in Sevagram in 1967, where he did his first writing based on the 18th-19th century data he had collected. His next long stay in Sevagram was from December (1980) to March (1981) when he completed *The Beautiful Tree*. From around August 1982 to 1987, he was mostly in Sevagram with occasional sojourns in Madras.

Dharampal was president of the Patriotic and People-Oriented Science and Technology (PPST) group. He was also closely associated with the Centre for Policy Studies located in Madras.

His wife died in London in 1986.

From 1993, he has been living largely at Ashram Pratisthan in Sevagram.

DHARAMPAL • *COLLECTED WRITINGS*

Volume III

THE BEAUTIFUL TREE

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Volume I
Indian Science and Technology in the Eighteenth Century

Volume II
Civil Disobedience in Indian Tradition

Volume III
The Beautiful Tree: Indigenous Indian Education in the Eighteenth Century

Volume IV
Panchayat Raj and India’s Polity

Volume V
Essays on Tradition, Recovery and Freedom

THE BEAUTIFUL TREE

Indigenous Indian Education in the Eighteenth Century

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In memory
of Shri Jayaprakash Narayan
for
his unflagging interest and guidance
in this work.

...That does not finish the picture. We have the education of this future state. I say without fear of my figures being challenged successfully, that today India is more illiterate than it was fifty or a hundred years ago, and so is Burma, because the British administrators, when they came to India, instead of taking hold of things as they were, began to root them out. They scratched the soil and began to look at the root, and left the root like that, and the beautiful tree perished. The village schools were not good enough for the British administrator, so he came out with his programme. Every school must have so much paraphernalia, building, and so forth. Well, there were no such schools at all. There are statistics left by a British administrator which show that, in places where they have carried out a survey, ancient schools have gone by the board, because there was no recognition for these schools, and the schools established after the European pattern were too expensive for the people, and therefore they could not possibly overtake the thing. I defy anybody to fulfill a programme of compulsory primary education of these masses inside of a century. This very poor country of mine is ill able to sustain such an expensive method of education. Our state would revive the old village schoolmaster and dot every village with a school both for boys and girls.

(MAHATMA GANDHI AT CHATHAM HOUSE, LONDON,
OCTOBER 20, 1931)

...I have not left off the pursuit of the subject of education in the villages during the pre-British period. I am in correspondence with several educationists. Those who have replied do support my view but do not produce authority that would be accepted as proof. My prejudice or presentiment still makes me cling to the statement I made at Chatham House. I don't want to write haltingly in Harijan*. You don't want me merely to say that the proof I had in mind has been challenged by you!*

(GANDHIJI TO SIR PHILIP HARTOG, SEGAON,
AUGUST, 1939)

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Preface

A great deal of scholarly work has been published on the history of education in India, especially during the 1930s, and 1940s. In fact, writings on the subject, initially by British officials-cum-scholars, started to appear as early as the mid-nineteenth century. Most of these histories, however, relate to the ancient period, sometimes going as far back as the tenth or twelfth century A.D. Others deal with the history of education during British rule and thereafter. Besides detailed scholarly works on specific ancient educational institutions (such as those at Nalanda or Taxila), there are more general works like that of A.S. Altekar[1] on the ancient period. For the later period, there have been several publications: besides the two volumes of *Selections from Educational Records*, published and recently reprinted by the Government of India itself,[2] the work of S. Nurullah and J.P. Naik may be mentioned here.[3] The latter work is interestingly described by the two authors (thus indicating its time and mood) as an attempt at a 'well-documented and comprehensive account of Indian educational history during the last one hundred and sixty years and to interpret it from the Indian point of view.'[4]

Reaching a far wider audience is the voluminous work of Pandit Sundarlal, first published in 1939,[5] though perhaps less academic. The 36th chapter of this celebrated work entitled, 'The Destruction of Indian Indigenous Education', runs into 40 pages, and quotes extensively from various British authorities. These span almost a century: from the Dispatch from England of 3rd June 1814 to the Governor General in India, to the observations of Max Mueller; and the 1909 remarks of the British labour leader, Keir Hardie. However, given the period in which the book was written and the inaccessibility of the detailed manuscript records, it was inevitable that the author had to base his work entirely on existing printed sources. Nevertheless, as an introduction, this chapter of *Bharat men Angreji Raj* is a landmark on the subject of indigenous Indian education in the late 18th and early 19th centuries.

Very little, however, has been written on the history, or state of education during this period, starting with the thirteenth century and up until the early nineteenth century. Undoubtedly, there are a few works like that of S.M. Jaffar[6] pertaining to Muslim education. There are a chapter or two, or some cursory references in most educational histories pertaining to the period of British rule, and to the decayed state of indigenous Indian education in the late eighteenth and early nineteenth centuries. Nurullah and Naik's book[7] devotes the first 43 pages (out of 643 pages) to discussing the state of indigenous education in the early nineteenth century, and in challenging certain later British views about the nature and extent of it.

Most of the discussion on the state of indigenous Indian education in the early nineteenth century, and the differing view-points which give rise to it, use as their source material (a) the much talked about reports by William Adam, a former Christian missionary, on indigenous education in some of the districts of Bengal and Bihar 1835-8,[8] (b) published extracts of a survey made by the British authorities regarding indigenous education in the Bombay Presidency during the 1820s,[9] and (c) published extracts from another wider survey of indigenous education made in the Madras Presidency (from Ganjam in the north to Tinnevelly in the south, and Malabar in the west) during 1822-25.[10] A much later work on the subject, but more or less of a similar nature is that of G.W. Leitner pertaining to indigenous education in the Punjab.[11]

Amongst the above-mentioned sources, G.W. Leitner's work, based on earlier governmental documents and on his own survey, is the most explicitly critical of British policies. It holds the British authorities responsible for the decay, and even the destruction of indigenous education in the Punjab—the area with which his book is concerned. The reports of Adam, as well as the reports of some of the collectors in the Madras Presidency[12] refer likewise to the decay of indigenous education in the areas of India with which they were concerned. Of course, they do so much less explicitly—and in language more suited to British officers and gentlemen—(Leitner, though a British official, was 'not an Englishman').[13]

Mahatma Gandhi's long address at the Royal Institute of International Affairs, London on 20 October, 1931, stated that literacy had declined in India in the past 50-100 years and held the British responsible for it. The statement provided a real edge to the observations of Adam, Leitner, and others and to the view which Indians had held for decades. It was then that all the above sources relating to indigenous education in the earlier part of the nineteenth century assumed their great importance. The person who, perhaps not only as an individual, but also as a representative of British rule in India, contested what Gandhiji had said was Sir Philip Hartog, one time vice-chancellor of Dacca University, and chairman of the 'auxiliary committee of the Indian Statutory Commission'. He asked Gandhiji for 'precise references to the printed documents on which' Gandhiji's 'statements were based.'[14] Not finding satisfaction (during much of this period Gandhiji and his colleagues were in prison) Hartog, four years later delivered a series of three lectures at the University of London Institute of Education with the aim of countering Gandhiji's statement. After adding three memoranda and necessary references, Hartog got these published in book form in 1939.[15]

Countering Gandhiji and the earlier sources in this manner, Sir Philip Hartog was really not being original. He was merely following a well-trodden British path in defence of British acts and policies in India; a path which had been charted some 125 years earlier by William Wilberforce, later considered as the father of Victorian England, in the British House of Commons.[16] Hartog had been preceded in his own time in a similar enterprise by W.H. Moreland, who could not accept Vincent Smith's observation that 'the hired labourer in the time of Akbar and Jahangir probably had more to eat in ordinary years than he has now.'[17] Smith's challenge appears to have led Moreland from the life of a retired senior revenue settlement officer into the role of an economic historian of India.[18] Quite understandably, at least till the 1940s, and burdened as they were with a sense of mission, the British could not accept any criticism of their actions, deliberate, or otherwise, in India (or elsewhere) during the two centuries of their rule.

A major part of the documents reproduced in this book pertain to the Madras Presidency Indigenous Education Survey. These were first seen by this writer in 1966. As mentioned above, an abstract of this survey was included in the House of Commons Papers as early as 1831-32. Yet, while many scholars must have come across the detailed material in the Madras Presidency District Records, as well as the Presidency Revenue Records (the latter incidentally exist in Madras as well as in London), for some unexplained reasons this material seems to have escaped academic attention. The recent Madras University doctoral thesis pertaining to the various Madras Presidency districts covering this period also does not seem to have made any use of this data, despite the fact that some of it does contain some occasional reference to matters of education.

The Beautiful Tree is not being presented with a view to decry British rule. Rather, it is the continuation of an effort to comprehend, to the extent it is possible for this author, through material of this kind relating to the late eighteenth and early nineteenth centuries, the reality of the India of this period: its society, its infra-structure, its manners and institutions, their strengths and weaknesses. The book touches on another aspect of this India in more or less the same manner as the author's two earlier books in this field, *Indian Science and Technology in the Eighteenth Century,*[19] and *Civil Disobedience in Indian Tradition.*[20] Furthermore, an attempt has been made in the Introduction to situate the information on the indigenous Indian education of the period in its temporal context and, with that in view, brief mention is made of the state of education in England until the beginning of the nineteenth century.

A number of friends have taken interest in this material and offered me their valuable advice and opinion during the past several years. I am grateful to all of them. Without their support and encouragement, this work may never have been completed. Even more so, I am greatly indebted to the University of Oxford for being kind enough to consult their University archives in order to answer some of my queries pertaining to the academic courses, etc., at Oxford at the beginning of the nineteenth century. Similarly, I am much obliged to the India Office Library & Records (I.O.R.), and to Mr Martin Moir in particular, for supplying me with copies of the Hartog-Gandhi correspondence. I am also obliged to the A.N. Sinha Institute of Social Studies, Patna, for offering me a senior fellowship of the institute during 1972-73 and to the Gandhian Institute of Studies, Varanasi, the Gandhi Peace Foundation, New Delhi, the Gandhi Seva Sangh, Sevagram, and the Association of Voluntary Agencies for Rural Development, New Delhi, for interest in and support to this venture, as occasion demanded.

The text of the Madras Presidency material (included in the Annexures), though first consulted in the India Office Library, is taken from the records in the Tamilnadu State Archives (previously the Madras Record Office). For this facility, and for much kindness and consideration shown to me, my thanks go to the fairly over-worked staff of the Archives. The note by Alexander Walker, also reproduced here, is from the Walker of Bowland

Papers in the National Library of Scotland, Edinburgh. My sincere thanks go to the National Library for permission and facilities to consult these and other papers, as also to the Scottish Record Office, the University of Edinburgh, and the Uttar Pradesh State Archives, Allahabad, for similar permission and facilities.

Finally, I am honoured by the Ashram Pratishthan, Sevagram, for extending me an invitation to write this book in the Ashram, and for providing me the necessary facilities and for treating me as one of their own. Completing this work living near Gandhiji's hut has indeed been a great privilege.

* * *

The title of this book has been taken from the speech which Mahatma Gandhi had made at Chatham House, London, on 20 October, 1931. He had said:

> ...the British administrators, when they came to India, instead of taking hold of things as they were, began to root them out. They scratched the soil and began to look at the root, and left the root like that, and *the beautiful tree* perished.

The subtitle has also been chosen accordingly. Although the Madras Presidency data which forms the bulk of this book was collected during 1822-25, the educational system to which the data pertained was much older. It was still the dominant system during the 18th century, after which it started decaying very rapidly. The Adam Reports reflect that decline in the fourth decade of the 19th century.

February 19, 1981. DHARAMPAL
Ashram Pratishthan,
Sevagram.

Notes

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1. A.S. Altekar: *Education in Ancient India,* 2nd Ed., Benares, 1944.

2. National Archives of India: *Selections from the Educational Records,* I:1781-1839, II:1840-1859 by H.Sharp and J.A. Richey 1920, 1922 (reprinted 1965).

3. Syed Nurullah and J.P. Naik: *History of Education in India during the British Period*, Bombay, 1943.

4. *Ibid*, Preface.

5. *Bharat mein Angreji Raj* (in Hindi). While its first edition in 1929 was immediately banned by the British, it was again published in 1939 in three volumes (1780 pages), and has not only been republished again, but has become a classic of its kind, providing a detailed account (pri

6. S.M. Jaffar: *Education in Muslim India*, Peshawar, 1936.

7. *History of Education in India during the British period, 1943*.

8. W. Adam: *Reports on the State of Education in Bengal 1835 and 1838*, edited by Anathnath Basu and reprinted, Calcutta, 1941.

9. House of Commons Papers, 1831-32, Vol.9.

10. *Ibid.*, pp.413-417, 500-507.

11. G.W. Leitner: *History of Indigenous Education in the Punjab since Annexation, and in 1882, 1883*; (Reprint: Languages Dept., Punjab, Patiala, 1973).

12. See reports of Madras Collectors reproduced in Annexures A(i)-(xxx).

13. Philip Hartog: *Some Aspects of Indian Education Past and Present*, OUP, 1939. Preface, viii.

14. India Office Library: MSS EUR D 551, Hartog to Mahatma Gandhi 21.10.1931.

15. Hartog: *op. cit.*

16. Hansard: June 22 and July 1, 1813.

17. V.A. Smith: *Akbar: The Great Mogul*, Clarendon Press, 1917, p.394.

18. London: *Journal of the Royal Asiatic Society, 1917*, pp.815-825.

19. *Indian Science and Technology in the Eighteenth Century: Some Contemporary European Accounts*, Other India Press, Goa, 2000.

20. *Civil Disobedience in Indian Tradition: With some Early Nineteenth Century Documents*, Other India Press, Goa, 2000.

Introduction

Indian historical knowledge, by and large, has been derived, at least until recent decades, from the writings and accounts left by foreigners. This applies equally to our knowledge about the status of Indian education over the past five centuries. The universities of Taxila and Nalanda, and a few others until recently have been better known and written about primarily because they had been described centuries ago by some Greek or Chinese traveller, who happened to keep a journal which had survived, or had communicated such information to his compatriots who passed it down to our times.

Travellers and adventurers of a new kind began to wander around parts of India from about 1500 A.D., and more so from about the close of the 16th century. Since for centuries the areas they came from had had no direct links with India, and as they had come from wholly different climates and societies, to them most aspects of India—its manners, religions, philosophies, ancient and contemporary architecture, wealth, learning, and even its educational methods—were something quite different from their own backgrounds, assumptions and experience.

Prior to 1770, (by which time they had become actual rulers of large areas), the British, on whose writings and reports this book is primarily based,[1] had rather a different set of interests. These interests, as in the subsequent period too, were largely mercantile, technological, or were concerned with comprehending, and evaluating Indian statecraft; and, thereby, extending their influence and dominion in India. Indian religions, philosophies, scholarship and the extent of education—notwithstanding what a few of them may have written on the Parsis, or the Banias of Surat—had scarcely interested them until then.

Such a lack of interest was due partly to their different expectations from India. The main reason for this, however, lay in the fact that the British society of this period—from the mid-sixteenth to about the later part of the eighteenth century—had few such interests. In matters like religion, philosophy, learning and education, the British were introverted by nature. It is not that Britain had no tradition of education, or scholarship, or philosophy during the 16th, 17th, or early 18th centuries. This period produced figures like Francis Bacon, Shakespeare, Milton, Newton, etc. It had the Universities of Oxford, Cambridge, and Edinburgh which had their beginnings in the 13th and 14th centuries A.D. By the later part of the 18th century, Britain also had around 500 Grammar Schools. However, this considerable learning and scholarship were limited to a very select elite. This became especially marked after the mid-sixteenth century, when the Protestant revolution led to the closing of most of the monasteries; while the state sequestered their incomes and properties.

Before the Protestant revolution, according to A.E. Dobbs, 'the University of Oxford might be described as the "chief Charity School of the poor and the chief Grammar School in England, as well as the great place of education for students of theology, of law and medicine"'[2]; and 'where instruction was not gratuitous throughout the school, some arrangement was made, by means of a graduated scale of admission fees and quarterages and a system of maintenance to bring the benefits of the institution within the reach of the poorest.'[3] Further, while a very early statute of England specified: 'No one shall put their child apprentice within any city or borough, unless they have land or rent of 20 shillings per annum: but they shall be put to such labour as their fathers or mothers use, or as their estates require;' it nonetheless also stated that 'any person may send their children to school to learn literature.'[4]

From about the mid-16th century, however, a contrary trend set in. It even led to the enactment of a law 'that the English Bible should not be read in churches. The right of private reading was granted to nobles, gentry and merchants that were householders. It was expressly denied to artificers' prentices, to journeymen and serving men "of the degree of yeomen or under", to husbandmen and labourers' so as 'to allay certain symptoms of disorder occasioned by a free use of the Scriptures.'[5] According to this new trend, it was 'meet for the ploughman's son to go to the plough, and the artificer's son to apply the trade of his parent's vocation: and the gentlemen's children are meet to have the knowledge of Government and rule in the commonwealth. For we have as much need of ploughmen as any other State: and all sorts of men may not go to school.'[6]

A century and a half later (that is, from about the end of the 17th century), there is a slow reversal of the above trend, leading to the setting up of some Charity Schools for the common people. These schools are mainly conceived to provide 'some leverage in the way of general education to raise the labouring class to the level of religious instruction'; and, more so in Wales, 'with the object of preparing the poor by reading and Bible study for the Sunday worship and catechetical instruction.'[7]

After a short start, however, the Charity School movement became rather dormant. Around 1780, it was succeeded by the Sunday school movement.[8] 'Popular education', even at this period, 'was still approached as a missionary enterprise.' The maxim was 'that every child should learn to read the Bible.'[9] 'The hope of securing a decent observance of Sunday'[10] led to a concentrated effort on the promotion of Sunday schools. After some years, this attention focussed on the necessity of day schools. From then on, school education grew apace. Nevertheless, even as late as 1834, 'the curriculum in the better class of national schools was limited in the main to religious instruction, reading, writing and arithmetic: in some country schools writing was excluded for fear of evil consequences.'[11]

The major impetus to the Day school movement came from what was termed the 'Peel's Act of 1802'. This Act required the employer of young children 'to provide, during the first four years of the seven years of apprenticeship, competent instruction in reading, writing and arithmetic, and to secure the presence of his apprentice at religious teaching for one hour every Sunday and attendance at a place of worship on that day.'[12] 'But the Act was unpopular', and its 'practical effect...was not great.'[13] At about the same time, however, the monitorial method of teaching used by Joseph Lancaster (and also by Andrew Bell, supposedly borrowed from India)[14] came into practice and greatly helped advance the cause of popular education. The number of those attending school was estimated at around 40,000 in 1792, at 6,74,883 in 1818, and 21,44,377 in 1851. The total number of schools, public as well as private in 1801 was stated to be 3,363. By stages, it reached a total of 46,114 in 1851.[15]

In the beginning, 'the teachers were seldom competent', and 'Lancaster insinuates that the men were not only ignorant but drunken.'[16] As regards the number of years of schooling, Dobbs writes that 'allowing for irregularity of attendance, the average length of school life rises on a favourable estimate from about one year in 1835 to about two years in 1851.'[17]

The fortunes of English Public schools are said to have fallen strikingly during the eighteenth century. In January 1797, the famous school at Shrewsbury, for instance, did not have 'above three or four boys.' After some major reorganisation, it had about 20 pupils a year later.[18] In public schools like Eton, teaching consisted of writing and arithmetic (a number of English and

Latin books were studied); while those in the fifth form also learnt ancient Geography, or Algebra. 'Those who stayed at Eton long enough' also 'went through part of Euclid.'[19] However it was 'not till 1851 that Mathematics became a part of the regular school work and even at that date those who taught the subject were not regarded as persons of full standing on the staff of masters.'[20]

School education, especially elementary education at the people's level, remained an uncommon commodity till around 1800. Nonetheless, the universities of Oxford, Cambridge, and Edinburgh were perhaps as important for Britain as Taxila and Nalanda were in ancient India; or places like Navadweep were as late as the later part of the 18th century.[21] Since many of those who began to come to India from Britain especially after 1773 as travellers, scholars, or judges had had their education in one of these three universities,[22] it may be relevant to provide here a brief account of the courses studied together with the number of students, in one of these universities around 1800. The university chosen here is that of Oxford, and it is assumed that this information is also fairly representative of studies at Cambridge and Edinburgh at this period.

The growth of the University of Oxford (following England's rupture with Rome) may be indicated with the following chronological list of professorships created there from 1546 onwards:[23]

1546	5 Professorships founded by Henry VIII: 1. Divinity, 2. Civil Law, 3. Medicine, 4. Hebrew, 5. Greek
1619	Geometry, and Astronomy

1621	Natural Philosophy
1621	Moral Philosophy (but break between 1707-1829)
1622	Ancient History (i.e. Hebrew, and Europe)
1624	Grammar, Rhetoric, Metaphysics (fell into disuse, replaced by Logic in 1839)
1624	Anatomy
1626	Music
1636	Arabic
1669	Botany
1708	Poetry
1724	Modern History and Modern Languages
1749	Experimental Philosophy
1758	Common Law
1780	Clinical Instruction
1795	Anglo-Saxon (i.e. language, literature, etc.)
1803	Chemistry

In the beginning of the nineteenth century, there were nineteen colleges and five halls in Oxford. There were about 500 fellows in the colleges, a few of whom were engaged in teaching in each college. In addition, there were nineteen professors in 1800. This total had increased to 25 by 1854.

Theology and classics were the main subjects which were studied at the beginning of the nineteenth century. Examinations were set in classics known as *Literae Humaniores*. These included Greek and Latin language and literature, moral philosophy, rhetoric and logic, and the elements of the mathematical sciences and physics.

Lectures were also available on other topics, e.g. law, medicine and geology.

After 1805, there was an increase in the number of students entering the University. The number of students on the rolls rose from about 760 in the early nineteenth century to about 1300 in 1820-24.

The main sources of financial support of the colleges in Oxford were their endowments, mainly in land, and income from students. The proportion of income from each source varied from college to college. Taking a wider view of all the expenses of a university course (including clothing and travelling), a parent who clothed his son and supported him at university as well as during the vacation could expect to pay from £600-800 for his four year course around 1850.[24]

While the British, as well as the Dutch, the Portuguese, and the French, directly or in the name of the various East India Companies they had set up in the late 16th and early 17th centuries were busy extending their bases, factories, fortifications and the like, and wherever possible occupying whole territories in the Indian Ocean area, European scholars on their part were trying to understand various aspects of the civilizations existing in this area. Prominent amongst these were members of several Christian monastic orders, the most well known being the Jesuits, who were specialising in the fields of the sciences, customs, manners, philosophies and religions. There were some others with interests of a more political, historical or economic nature. Many of them took to narrating their own adventures, and occasionally, misfortunes in the 'fabulous' and 'exotic' East. Due to the widespread interest of the European elite, much of this writing was published in one or more European languages soon after. Accounts and discussions which happened to be of a limited, but great scholarly or religious interest, were copied by hand many times over.[25]

II

This great accumulation of material, from about the mid-18th century, led to serious scholarly attention and debate on India, and areas of South East Asia, particularly with regard to their politics, laws, philosophies and sciences, especially Indian astronomy. This contemporary European interest, (especially amongst men like Voltaire, Abbe Raynal and Jean Sylvain Bailly) aroused a similar interest in Britain. This was more so amongst those connected with the University of Edinburgh, like Adam Ferguson, William Robertson, John Playfair[26] and A. Maconochie. In 1775, Adam Ferguson recommended to his former student, John Macpherson (temporarily to be Governor General of Bengal during 1784-85) 'to collect the fullest details you can of every circumstance relating to the state and operation of policy in India...That you may the better apprehend what I mean by the detail...select some town and its district. Procure if possible an account of its extent and number of people. The different classes of that people, the occupations, the resources, the way of life of each. How they are related and their mutual dependencies. What contributions Government, or subordinate masters draw from the labourer of any denomination and how it is drawn. But I beg pardon for saying so much of an object which you must know so much better than I do. The man who can bring light from India (i.e. of its material resources, etc.) into this country and who has address to make his light be followed may in a few years hence make himself of great consequence and here I shall conclude my letter...'[27]

A. Maconochie advocated, on the other hand (first in 1783[28] and then again in 1788), the taking of such measures by 'our monarch, the sovereign of the banks of the Ganges...as may be necessary for discovering, collecting and translating whatever is extent of the ancient works of the Hindoos.' He thought that if the British 'procured these works to Europe, astronomy and antiquities, and the sciences connected with them would be advanced in a still great proportion.' He observed further that 'the antiquities of the religion and Government of the Hindoos are not less interesting than those of their sciences'; and felt that 'the history, the poems, the traditions, the very fables of the Hindoos might therefore throw light upon the history of the ancient world and in particular upon the institutions of that celebrated people from whom Moses received his learning and Greece her religion and her arts.' Prof. Maconochie also stated that the centre of most of this learning was Benares, where 'all the sciences are still taught' and where 'very ancient works in astronomy are still extant.'[29]

Around the same time, a similar vein of thought and some corresponding action had started amongst those who had been entrusted with the exercise of political power and the carrying out of the policies and instructions from London, within India. The more practical and immediate purposes of governance (following Adam Ferguson) led to the writing of works on Hindu and Muslim law, investigations into the rights of property and the revenues of various areas, and to assist all this, to a cultivation of Sanskrit and Persian amongst some of the British themselves. Acquaintance with these languages was felt necessary so as to enable the British to discover better, or to discard, choose, or select what suited their purpose most. In the process some of them also developed a personal interest in Sanskrit and other Indian literature for its own sake, or for the sort of reasons which Prof. Maconochie had in view. Charles Wilkins, William Jones, F.W. Ellis in Madras, and Lt Wilford (the latter got engaged in some very exotic research at Varanasi) were amongst the more well known men of this category.

Three approaches (seemingly different but in reality complementary to one another) began to operate in the British held areas of India regarding Indian knowledge, scholarship and centres of learning from about the 1770s. The first resulted from growing British power and administrative requirements which (in addition to such undertakings that men like Adam Ferguson had recommended) also needed to provide a garb of legitimacy and a background of previous indigenous precedents (however farfetched) to the new concepts, laws and procedures which were being created by the British state. It is primarily this requirement which gave birth to British Indology. The second approach was a product of the mind of the Edinburgh enlightenment (dating back to around 1750) which men like Maconochie represented. They had a fear, born out of historical experience, philosophical observation and reflection (the uprooting of entire civilizations in the Americas), that the conquest and defeat of a civilisation generally led not only to its disintegration, but the disappearance of precious knowledge associated with it. They advocated, therefore, the preparation of a written record of what existed, and what could be got from the learned in places like Varanasi. The third approach was a projection of what was then being attempted in Great Britain itself: to bring people to an institutionalised, formal, law-abiding Christianity and, for that some literacy and teaching became essential. To achieve such a purpose in India, and to assist evangelical exhortation and propaganda for extending Christian 'light' and 'knowledge' to the people, preparation of the grammars of various Indian languages became urgent. The task according to William Wilberforce, called for 'the circulation of the holy scriptures in the native languages' with a view to the general diffusion of Christianity, so that the Indians 'would, in short become Christians, if I may so express myself, without knowing it.'[30]

All these efforts, joined together, also led to the founding of a few British sponsored Sanskrit and Persian colleges as well as to the publication of some Indian texts or selections from them which suited the purpose of governance. From now on, Christian missionaries also began to open schools. Occasionally, they wrote about the state and extent of indigenous education in the parts of India in which they functioned. However, British interest was not centered on the people, their knowledge, or education, or the lack of it. Rather, their interest in ancient texts served their purpose: that of making the people conform to what was chosen for them from such texts and their new interpretations. Their other interest (till 1813, this was only amongst a section of the British) was in the christianisation of those who were considered ready for such conversions (or, in the British phraseology of the period, for receiving 'the blessings of Christian light and moral improvements'). These conversions were also expected to serve a more political purpose, in as much as it was felt that it could establish some affinity of outlook and belief between the rulers and the ruled. A primary consideration in all British decisions from the very beginning, continued to be the aim of maximising the revenue receipts of Government and of discovering any possible new source which had remained exempt from paying any revenue to Government.

III

Instructions regarding the collection of information about the extent and nature of indigenous Indian education (including its contemporary state) were largely the consequence of the long debate in the House of Commons in 1813. This debate focussed on the clause relating to the promotion of 'religious and moral improvement' in India.[31] Before any new policy could be devised, the existing position needed to be better known. But the quality and coverage of these surveys varied from Presidency to Presidency, and even from district to district. (This generally happens in the gathering of any such information, and more so when such collection of data was a fairly new thing.)

The information which is thus available today, whether published, or still in manuscript form in the government records—as is true of the details of the Madras Presidency indigenous education survey—largely belongs to the 1820's and 1830's period. An unofficial survey made by G.W. Leitner in 1882 for the Punjab compared the situation there for the years before 1850, with that in 1882.

Before highlighting the main points of information given by the surveys and then proceeding with its analysis, some preliminary observations about the data as a whole are in order.

The first observation concerns the largely quantitative nature of the data presented and the fact that it concentrates largely on the institution of the school as we know it today. This, however, may help propagate wrong impressions.

It is important to emphasize that indigenous education was carried out through *pathshalas*, *madrassahs* and *gurukulas*. Education in these traditional institutions—which were actually kept alive by revenue contributions by the community including illiterate peasants—was called *shiksha* (and included the ideas of *prajna*, *shil* and *samadhi*). These institutions were, in fact, the watering holes of the culture of traditional communities. Therefore, the term 'school' is a weak translation of the roles these institutions really played in Indian society.

For this reason, the quantitative nature of the data presented should be read with great caution. The increase in the numbers of schools in England may not necessarily have been a good thing, as it merely signified the arrival of factory schooling. On the other hand, the decline in the numbers of traditional educational institutions is to be intensely deplored, since this meant quality education was being replaced by a substandard substitute. These aspects must always be kept at the back of our minds when we commence analysing the data for significance. Before we do that, the highlights first.

The most well-known and controversial point which emerged from the educational surveys lies in an observation made by William Adam. In his first report, he observed that there exist about 1,00,000 village schools in Bengal and Bihar around the 1830s.[32] This statement appears to have been founded on the impressions of various high British officials and others who had known the different areas rather intimately and over long periods; it had no known backing of official records. Similar statements had been made, much before W. Adam, for areas of the Madras Presidency. Men like Thomas Munro, had observed that 'every village had a school.'[33] For areas of the newly extended Presidency of Bombay around 1820, senior officials like G.L. Prendergast noted 'that there is hardly a village, great or small, throughout our territories, in which there is not at least one school, and in larger villages more.'[34] Observations made by Dr G.W. Leitner in 1882 show that the spread of education in the Punjab around 1850 was of a similar extent.

Since these observations were made, they have been treated very differently: by some, with the sanctity reserved for divine utterances; and by others, as blasphemous. Naturally, the first view was linked with the growth of a vocal Indian nationalism. Its exponents, besides prominent Indians of the late nineteenth and early twentieth century, have also included many illustrious Englishmen, like Keir Hardie, and academics like Max Mueller. The second, the blasphemous view of them, was obviously held by those who were in the later period, in one capacity or another, concerned with the administration of India; or those who felt impelled, sometimes because of their commitment to certain theoretical formulations on the development of societies, to treat all such impressions as unreal. Especially after 1860, it had become necessary to ensure that men who had had a long period of service in the British Indian administration or its ancillary branches and who also had the ability to write, should engage in the defence of British rule, especially its beginnings, and consequently attempt to refute any statements which implied that the British had damaged India in any significant manner.

While much ink has been spilt on such a controversy, little attempt is known to have been made for placing these statements or observations in their contextual perspective. Leaving Leitner's work, most of these statements belong to the early decades of the nineteenth century. For the later British administrator, the difficulty of appreciating the substance of the controversy is quite understandable. For England had few schools for the children of ordinary people till about 1800. Even many of the older Grammar Schools were in poor shape at the time. Moreover, the men who wrote about India (whether concerning its education, or its industry and crafts, or the somewhat higher real wages of Indian agricultural labourers compared to such wages in England)[35] belonged to the late eighteenth and early nineteenth century society of Great Britain. Naturally, when they wrote about a school in every village in India—whether that may or may not have been literally true—in contrast to the British situation, it must have appeared to them so. And though they did not much mention this contrast in so many words, it may reasonably be assumed that, as perceptive observers, it was the very contrast which led them to make such judgements.

These surveys, based not on mere impressions but on hard data, reveal a great deal: the nature of Indian education; its content; the duration for which it ordinarily lasted; the numbers actually receiving institutional education in particular areas; and, most importantly, detailed information on the background of those benefiting from these institutions.

The idea of a school existing in every village, dramatic and picturesque in itself, attracted great notice and eclipsed the equally important details. The more detailed and hard facts have received hardly any notice or analysis. This is both natural and unfortunate. For these latter facts provide an insight into the nature of Indian society at that time. Deeper analysis of this data and adequate reflection on the results followed by required further research may help solve even the riddle of what has been termed 'the legend of the 1,00,000 schools'.[36]

According to this hard data, in terms of the content, the and proportion of those attending institutional school education, the situation in India in 1800 is certainly not inferior to what obtained in England then; and in many respects Indian schooling seems to have been much more extensive (and, it should be remembered, that it is a greatly damaged and disorganised India that one is referring to). The content of studies was better than what was then studied in England. The duration of study was more prolonged. The method of school teaching was superior and it is this very method which is said to have greatly helped the introduction of popular education in England but which had prevailed in India for centuries. School attendance, especially in the districts of the Madras Presidency, even in the decayed state of the period 1822-25, was proportionately far higher than the numbers in all variety of schools in England in 1800. The conditions under which teaching took place in the Indian schools were less dingy and more natural;[37] and, it was observed, the teachers in the Indian schools were generally more dedicated and sober than in the English versions. The only aspect, and certainly a very important one, where Indian institutional education seems to have lagged behind was with regard to the education of girls. Quite possibly, girl schooling may have been proportionately more extensive in England in 1800, and was definitely the case, a few decades later. Accounts of education in India do often state (though it is difficult to judge their substantive accuracy from the data which is so far known), that the absence of girls in schools was explained, however, by the fact that most of their education took place in the home.

It is, however, the Madras Presidency and Bengal-Bihar data which presents a kind of revelation. The data reveals the background of the teachers and the taught. It presents a picture which is in sharp contrast to the various scholarly pronouncements of the past 100 years or more, in which it had been assumed that education of any sort in India, till very recent decades, was mostly limited to the twice-born[38] amongst the Hindoos, and amongst the Muslims to those from the ruling elite. The actual situation which is revealed was different, if not quite contrary, for at least amongst the Hindoos, in the districts of the Madras Presidency (and dramatically so in the Tamil-speaking areas) as well as the two districts of Bihar. It was the groups termed Soodras, and the castes considered below them[39] who predominated in the thousands of the then still-existing schools in practically each of these areas.

The last issue concerns the conditions and arrangements which alone could have made such a vast system of education feasible: the sophisticated operative fiscal arrangements of the pre-British Indian polity. Through these fiscal measures, substantial proportions of revenue had long been assigned for the performance of a multiplicity of public purposes. These seem to have stayed more or less intact through all the previous political turmoils and made such education possible. The collapse of this arrangement through a total centralisation of revenue, as well as politics led to decay in the economy, social life, education, etc. This inference, if at all valid, warrants a re-examination of the various currently held intellectual and political assumptions with regard to the nature of pre-British Indian society, and its political and state structure.

Before discussing this last issue any further, however, it is necessary first to understand the various aspects of the educational data, and the controversy it gave rise to in the 1930s. Since the detailed data of the Madras Presidency is the least known and the most comprehensive, we shall examine it first.

IV

The available papers connected with this survey include the instructions of Government, the circular from the Board of Revenue to the district collectors conveying the instructions and the prescribed form according to which information had to be compiled, the replies of the collectors from all the 21 districts of the Presidency, the proceedings of the Board of Revenue on the information received while submitting it to Government, and the Madras Government's proceedings on it. These are all reproduced as Annexure A (i)-(xxx). It would have been useful for a more thorough analysis, and for better understanding of the situation if the details from which the collectors compiled their reports could be found. A reference to the records of a few districts, preserved in the Tamilnadu State Archives does not, however, indicate any additional material having survived in them. If any Taluka records still exist for this period it is quite possible they may contain more detailed data about particular villages, towns, colleges and schools.

In addition to the instructions conveyed in the Minute of the Governor-in-Council, and the text of the letter from Government to the Board of Revenue (both of which were sent to the collectors), the prescribed form required from them details of the number of schools and colleges in the districts, and the number of male and female scholars in them. The number of scholars, male as well as female were further to be provided under the following categories: (i) Brahmin scholars, (ii) Vysee scholars, (iii) Soodra scholars, (iv) scholars of all other castes and (v) Mussalman scholars. The numbers under (i) to (iv) were to be totalled separately. To these were added those under (v), thus arriving at the total number of Hindoo and Mussalman scholars, in the district, or some part of it. The category 'all other castes', as mentioned earlier, evidently seems to have implied all such castes considered somewhat below the Sat-Soodra category. This included most such groupings which today are listed among the scheduled castes.

It may be noted from the documents that while a reply was received from the collector of Canara, he did not send any data about the number of schools, and colleges, or any estimation of the number of those who may have been receiving instruction in the district, through what he termed private education. Apart from the statement that 'there are no colleges in Canara', etc., he was of the view that teaching in Canara could not be termed ‘public education’; as it was organised on a somewhat discontinuous basis by a number of parents in an area by getting together and engaging the services of a teacher(s) for the purpose of teaching their children. The major difficulty for the collector, however, seemed to be that ‘the preparation of the necessary information would take up a considerable time’; and, that even if it were collected, no ‘just criterion of the actual extent of schools as exist in this zillah could be formed upon it.’ He hoped, therefore, that his letter itself would be considered as a satisfactory reply. It may be added here that Canara (from about 1800 onwards, and till at least the 1850s), even more than the northern areas of coastal Andhra, was the scene of continual opposition and peasant resistance to British rule. Besides, it also generally happened that whenever any such data was ordered to be collected (and this happened quite often) on one topic or another, the quality and extent of the information supplied by the collectors varied a great deal. To some extent, such differences in these returns arose from the varying relevance of an enquiry from district to district. A more important reason, perhaps, was the fact that because of the frequent change of collectors and their European assistants, many of them (at the time such information was required) were not very familiar with the district under their charge. Furthermore, quite a number were for various reasons, too involved in other more pressing activities, or, mentally much less equipped to meet such continual demands for information.

The information from the districts, therefore, varies a great deal in detail as well as quality. While the data from about half the districts was organised taluka-wise, and in some even pargana-wise, from the other half it was received for the district as a whole. Three districts—Vizagapatam, Masulipatam and Tanjore—added one further category to the prescribed form provided by Government, viz. the category of Chettris or Rajah scholars between the columns for Brahmin and Vysee scholars. Further, while some of the collectors especially of Bellary, Cuddapah, Guntoor and Rajahmundry sent fairly detailed textual replies, some others like Tinnevelly, Vizagapatam and Tanjore left it to the data to tell the story. A few of the collectors also mentioned the books used in the schools and institutions of higher learning in their districts. The collector of Rajahmundry, being the most detailed, provided a list of 43 books used in Telugu schools. He also identified some of those used in the schools of higher learning, as well as in the schools teaching Persian and Arabic.

TOTAL SCHOOLS, COLLEGES AND SCHOLARS

Table 1 gives the total number of schools and institutions of higher learning, along with the number of students in them in their districts. The data is taken from the reports of the collectors. Incidentally, the collectors of Ganjam and Vizagapatam indicated that the data they were sending was somewhat incomplete. This might also have been true of some of the other districts which were wholly or partly under Zamindary tenure.

Two of the collectors also sent detailed information pertaining to those who were being educated at home, or in some other private manner. The collector of Malabar sent details of 1,594 scholars who were receiving education in Theology, Law, Astronomy, Metaphysics, Ethics and Medical Science in his district from private tutors. The collector of Madras, on the other hand, reported in his letter of February 1826 that 26,963 school-level scholars were then receiving tuition at their homes in the area under his jurisdiction. More will be said about this private education subsequently.

The reports of the collectors were ultimately reviewed by the Government of the Presidency of Madras on 10 March 1826. The Governor, Sir Thomas Munro, was of the view that while the institutional education of females seemed negligible, that of the boys between the ages of 5 to 10 years appeared to be a 'little more than one-fourth' of the boys of that age in the Presidency as a whole. Taking into consideration those who were estimated as being taught at home, he was inclined 'to estimate the portion of the male population who receive school education to be nearer to one-third than one-fourth of the whole.'

CASTE-WISE DIVISION OF MALE SCHOOL STUDENTS

The more interesting and historically more relevant information, however, is provided by the caste-wise division of students. This is true not only as regards boys, but also with respect to the rather small number of girls who, according to the survey, were receiving education in schools. Furthermore, the information becomes all the more curious and pertinent when the data is grouped into the five main language areas—Oriya, Telugu, Kannada, Malayalam and Tamil. These constituted the Presidency of Madras at this period, and throughout the nineteenth century. *Table 2* gives the caste-wise number of school-going male students in each district of the five language areas.

It has generally been assumed that the education of any kind in India, whether in the ancient period, or just at the beginning of British rule was mainly concerned with the higher and middle strata of society; and, in case of the Hindoos (who in the Madras Presidency accounted for over 95% of the whole population), it was more or less limited to the twice-born. However, as will be seen from *Table 2*, the data of 1822-25 indicate more or less an opposite position. Such an opposite view is the most pronounced in the Tamil-speaking areas where the twice-born ranged between 13% in South Arcot to some 23% in Madras, the

Muslims form less than 3% in South Arcot and Chingleput to 10% in Salem, while the Soodras and the other castes ranged from about 70% in Salem and Tinnevelly to over 84% in South Arcot.

To make the foregoing tabulation more easily comprehensible the caste-wise data may be converted into percentages of the whole for each district. *Table 3* shows the result of such conversion.

In Malayalam-speaking Malabar, the proportion of the twice-born was still below 20% of the total. Because of a larger Muslim population, however, the number of Muslim school students went up to nearly 27%; while the Soodras, and the other castes accounted for some 54% of the school going students.

In the largely Kannada-speaking Bellary, the proportion of the twice-born (the Brahmins and the Vysees) went up to 33%, while the Soodras, and the other castes still accounted for some 63%.

The position in the Oriya-speaking Ganjam was similar: the twice-born accounting for some 35.6%, and the Soodras and other castes being around 63.5%.

It is only in the Telugu-speaking districts that the twice-born formed the major proportion of the school going students. Here, the proportion of Brahmin boys varied from 24% in Cuddapah to 46% in Vizagapatam; of the Vysees from 10.5% in Vizagapatam to 29% in Cuddapah; of the Muslims from 1% in Vizagapatam to 8% in Nellore; and of the Soodras and other castes from 35% in Guntoor to over 41% in Cuddapah and Vizagapatam.

SCHOOLS CLASSIFIED ACCORDING TO THE LANGUAGE OF INSTRUCTION

Some of the districts also provided information regarding the language in which education was imparted, and the number of schools where Persian or English were taught. The number of schools teaching English was only 10, the highest being 7 in the district of North Arcot. Nellore, North Arcot and Masulipatam had 50, 40 and 19 Persian schools respectively, while Coimbatore had 10, and Rajahmundry 5. North Arcot and Coimbatore had schools which taught Grantham (1 and 5 respectively) as well as teaching Hindvee [a sort of Hindustani] (16 and 14 respectively), and Bellary had 23 Marathi schools. The district of North Arcot had 365 Tamil and 201 Telugu schools, while Bellary had nearly an equal number of schools teaching Telugu and Kannada. *Table 4* indicates this data more clearly.

AGE OF ENROLLMENT, DAILY TIMINGS, ETC.

As mentioned earlier, the data varies considerably from district to district. Many of the collectors provided information regarding the age at which boys (and perhaps girls too) were admitted to school, the usual age being five. According to the collector of Rajahmundry, ‘the fifth day of the fifth month of the fifth year of the boy’s age is the “lucky day” for his first entrance into school’, while according to the collector of Cuddapah, the age for admission for Brahmin boys was from the age of five to six and that for Soodras from six to eight. The collector of Cuddapah further mentioned two years as the usual period for which the boys stayed at school. Nellore and Salem mentioned 3 to 5 or 6 years, while most others stated that the duration of study varied from a minimum of five to about a maximum of 15 years. While some collectors did not think much of the then current education in the schools, or of the learning and scholarship of the teachers, some thought the education imparted useful. The collector of Madras observed: ‘It is generally admitted that before they (i.e. the students) attain their 13th year of age, their acquirements in the various branches of learning are uncommonly great.’[40]

From the information given, it seems that the school functioned for fairly long hours: usually starting about 6 A.M., followed by one or two short intervals for meals, etc., and finishing at about sunset, or even later. *Table 5* charts out the information which was received on these points from the several collectors. The functioning of these schools, their methods of teaching, and the subjects taught are best described in the annexed accounts of Fra Paolino Da Bartolomeo (A.D. 1796) and of Alexander Walker (ca 1820).[41]

BOOKS USED IN SCHOOLS

The main subjects reported to be taught in these Indian schools were reading, writing and arithmetic. The following lists of books used in the schools of Bellary, as also of Rajahmundry may be worth noting, and may to some degree indicate the content of learning in these schools.

NAMES OF THE BOOKS IN USE IN THE SCHOOLS IN BELLARY DISTRICT[42]

A. *Most commonly used*

1. Ramayanum 2. Maha Bharata 3. Bhagvata

B. *Used by Children from Manufacturing Classes*

1. Nagalingayna-Kutha 2. Vishvakurma-Poorana
3. Kumalesherra Kalikamahata

C. *Used by Lingayat Children*

1. Buwapoorana 2. Raghavan-Kunkauya
3. Geeruja Kullana 4. Unbhavamoorta
5. Chenna-Busavaswara-Poorana 6. Gurilagooloo, etc.

D. *Lighter Literature Read*

1. Punchatantra 2. Bhatalapunchavunsatee
3. Punklee-soopooktahuller 4. Mahantarungenee

E. *Dictionaries and Grammars used*

1. Nighantoo 2. Umara 3. Subdamumburee
4. Shubdeemunee-Durpana 5. Vyacurna 6. Andradeepeca
7. Andranamasungraha, etc.

NAMES OF THE BOOKS IN USE IN THE SCHOOLS IN RAJAHMUNDRY[43]

1. Baula Ramauyanum
2. Rookmeny Culleyanum
3. Paurejantahpatraranum
4. Molly Ramauyanum
5. Raumayanum
6. Dansarady Satacum
7. Kreestna Satacum
8. Soomaty Satacum
9. Janakey Satacum
10. Prasunnaragara Satacum
11. Ramataraka Satacum
12. Bahscara Satacum
13. Beesanavecausa Satacum
14. Beemalingaswara Satacum
15. Sooreyanaraina Satacum
16. Narraina Satacum
17. Plaholanda Charatra
18. Vasoo Charatra
19. Manoo Charetra
20. Sumunga Charetra
21. Nala Charetra
22. Vamana Charetra
23. Ganintum
24. Pauvooloory Ganintum
25. Bhauratam
26. Bhaugavatum
27. Vejia Valousum
28. Kroostnaleelan Velausum
29. Rathamathava Velausum
30. Suptama Skundum
31. Astma Skundum
32. Rathamathava Sumvadum
33. Bhaunoomaly Paranayem
34. Veerabhadra Vejayem
35. Leelansoondary Paranayem
36. Amarum
37. Sooranthanaswarum
38. Voodeyagapurvem
39. Audepurvem
40. Gajandra Motchum
41. Andhranamasungraham
42. Coochalopurksyanum
43. Resekajana Manobharanum

INSTITUTIONS OF HIGHER LEARNING

While several of the collectors observed that no institutions of higher learning were then known to exist in their districts, the rest reported a total of 1,094 such places. These were enumerated under the term ‘colleges’ (as mentioned in the prescribed form). The largest number of these, 279, were in the district of Rajahmundry with a total of 1,454 scholars, Coimbatore came next with 173 such places (724 scholars), Guntoor had 171 (with 939 scholars), Tanjore 109 (with 769 scholars), Nellore 107, North Arcot 69 (with 418 scholars), Salem 53 (with 324 scholars), Chingleput 51 (with 398 scholars), Masulipatam 49

(with 199 scholars), Bellary 23, Trichnopoly 9 (with 131 scholars), and Malabar with one old institution maintained by the Samudrin Raja (Zamorin), with 75 scholars. In most other districts where no such institutions were known, the collectors reported that such learning—in the Vedas, Sastras, Law, Astronomy, Ganeetsastram, Ethics, etc.—was imparted in Agraharams, or usually at home. The data regarding such privately conducted learning in Malabar may be indicative of the extent of such learning in other districts also (discussed in a subsequent section). *Table 6* indicates these and other details more clearly.

In most areas, the Brahmin scholars formed a very small proportion of those studying in schools. Higher learning, however, being more in the nature of professional specialisation, seems in the main to have been limited to the Brahmins. This was especially true regarding the disciplines of Theology, Metaphysics, Ethics, and to a large extent of the study of Law. But the disciplines of Astronomy and Medical Science seem to have been studied by scholars from a variety of backgrounds and castes. This is very evident from the Malabar data: out of 808 studying Astronomy, only 78 were Brahmins; and of the 194 studying Medicine, only 31 were Brahmins. Incidentally, in Rajahmundry, five of the scholars in the institution of higher learning were Soodras. According to other Madras Presidency surveys, of those practising Medicine and Surgery, it was found that such persons belonged to a variety of castes. Amongst them, the barbers, according to British medical men, were the best in Surgery.[44]

Besides the account provided by the Samudrin Raja regarding the functioning of the institution supported by his family in Malabar,[45] the collectors of Guntoor, Cuddapah, Masulipatam, Madura and Madras also wrote in some detail on the subject of higher learning. According to the collector of Madras: ‘Astronomy, Astrology, etc. are in some instances taught to the children of the poorer class of Brahmins gratis, and in certain few cases an allowance is given proportionate to the circumstances of the parents or guardians.’ The collector of Madura on the other hand mentioned that:

> In agraharam villages inhabited by Brahmins, it has been usual from time immemorial to allot for the enjoyment of those who study the Vaidams and Pooranams (religion and historical traditions) an extent of maunium land yielding from 20 to 50 fanams per annum and in a few but rare instances to the extent of 100 fanams and they gratuitously and generally instruct such pupils as may voluntarily be brought to them.[46]

The collector of Masulipatam made a similar observation and stated:

> If the boys are of Vydeea Brahmins, they are, so soon as they can read properly, removed direct from schools to college of Vadums and Sastrums.
>
> The former is said to be the mother of all the sciences of Hindoos, and the latter is the common term for all those sciences, which are in Sanskrit, viz law, astronomy, theology, etc. These sciences are taught by Brahmins only, and more especially Brahmins holding Agraharams, Mauniums, Rozunahs, or other emoluments, whose duty it is to observe their religious obligation on all occasions.
>
> In most of the towns, villages and hamlets of this country, the Brahmins are teaching their boys the Vadum and Sastrums, either in colleges or elsewhere in their respective houses.[47]

The more descriptive accounts, however, were from Cuddapah and Guntoor. The collector of Cuddapah stated:

> Although there are no schools or colleges supported by public contribution, I ought not to omit that amongst Brahmins, instruction is in many places gratuitously afforded and the poorer class obtain all their education in this way. At the age of from 10 to 16 years, if he has not the means of obtaining instruction otherwise, a young Brahmin leaves his home, and proceeds to the residence of a man of his own caste who is willing to afford instruction without recompense to all those resorting to him for the purpose. They do not, however, derive subsistence from him for as he is generally poor himself, his means could not of course give support to others, and even if he has the means his giving food and clothing to his pupils would attract so many as

> to defeat that object itself which is professed. The Board would naturally enquire how these children who are so destitute as not to be able to procure instruction in their own villages, could subsist in those to which they are strangers, and to which they travel from 10 to 100 miles, with no intention of returning for several years. They are supported entirely by charity, daily repeated, not received from the instructor for the reasons above mentioned, but from the inhabitants of the villages generally. They receive some portion of alms daily at the door of every Brahmin in the village, and this is conceded to them with a cheerfulness which considering the object in view must be esteemed as a most honourable trait in the native character, and its unobtrusiveness ought to enhance the value of it. We are undoubtedly indebted to this benevolent custom for the general spread of education amongst a class of persons whose poverty would otherwise be an insurmountable obstacle to advancement in knowledge, and it will be easily inferred that it requires only the liberal and fostering care of Government to bring it to perfection.[48]

The collector of Guntoor was equally descriptive and observed that though there seemed to be 'no colleges for teaching theology, law, astronomy, etc. in the district' which are endowed by the state yet,

> These sciences are privately taught to some scholars or disciples generally by the Brahmins learned in them, without payment of any fee, or reward, and that they, the Brahmins who teach are generally maintained by means of maunium land which have been granted to their ancestors by the ancient Zamindars of the Zillah, and by the former Government on different accounts, but there appears no instance in which native Governments have granted allowances in money and land merely for the maintenance of the teachers for giving instruction in the above sciences. By the information which has been got together on the subject, it appears that there are 171 places where theology, laws and astronomy, etc. are taught privately, and the number of disciples in them is 939. The readers of these sciences cannot generally get teachers in their respective villages and are therefore obliged to go to others. In which case if the reader belongs to a family that can afford to support him he gets

what is required for his expenses from his home and which is estimated at three rupees per month, but which is only sufficient to supply him with his victuals; and if on the other hand, his family is in too indigent circumstances to make such allowance, the student procures his daily subsistence from the houses in the village where taught which willingly furnish such by turns.

Should people be desirous of studying deeper in theology, etc. than is taught in these parts, they travel to Benares, Navadweepum,[49] etc. where they remain for years to take instruction under the learned pundits of those places.[50]

SOME BOOKS USED IN HIGHER LEARNING

The books used in these institutions may be assumed to have been the *Vedas*, the various *Sastras*, the *Puranas*, the more well known books on *Ganeeta*, and *Jyotish-shastras*, and Epic literature. Except in the report from Rajahmundry, there is no mention of any books in the reports from other districts. According to Rajahmundry, some of the books used there were:

NAMES OF THE BOOKS IN USE IN THE COLLEGES IN RAJAHMUNDRY[51]

Vadams, etc.

1. Roogvadum
2. Yajoorvadum
3. Samavadum
4. Sroudum
5. Dravedavedum or Nunlauyanum

1. Ragoovumsam
1. Coomarasumbhavem
1. Moghasundasem
1. Bharavy
1. Maukhum
———
5.
6. Nayeshadum
7. Andasastrum

Sastrums

1. Sanskrit Grammar
Siddhanda Cowmoody

2. Turkum
3. Jeyoteshem
4. Durmasastrum
5. Cauveyems

Besides, as Rajahmundry had a few Persian schools,[52] it also sent a list of Persian and Arabic books studied. These were:

NAMES OF THE BOOKS IN USE IN THE PERSIAN SCHOOLS IN RAJAHMUNDRY

1. Caremah Aumadunnanmah
2. Harckarum in Persian
3. Inshah Culipha and Goolstan
4. Bahurdanish and Bostan
5. Abdul Phazul Inshah
6. Calipha
7. Khoran

PRIVATE TUITION (OR EDUCATION AT HOME)

Several collectors, especially the collector of Canara, who did not send any statistical returns at all, mentioned the fact that many of the boys and especially the girls received education at home from their parents, or relatives, or from privately engaged tutors. Many also stated that higher learning is being imparted in Agraharams, etc. However, it was only the collectors of Malabar and of the city of Madras who sent any statistical data on the subject. The collector of Malabar sent such data with regard to higher learning, while the collector of Madras about the boys and girls who were receiving education in their homes. Both the returns are reproduced in *Tables 7A & B*.

Regarding the data concerning higher learning from Malabar, it is reasonable to assume that though learning through private tutors did exist in most other districts, it was carried out in Malabar to a far greater extent due to its rather different historical and sociological background. As will be noted from *Tables 7A & B*, those studying in this fashion at this period (1823) were about twenty-one times the number of those attending the

solitary college supported by the more or less resourceless family of the Samudrin Raja. The Malabar data also shows 194 persons studying medicine. As indigenous medical practitioners existed in every other district and perhaps in every village—some of them still in receipt of revenue assignments for their services to the community—it can logically be assumed that similar teaching in Medical Science existed in most other districts too.

What number and proportions in the various disciplines were thus educated privately in the other districts, however, is a speculative question. Still, it may not be too erroneous to assume that the number of those 'privately' studying Theology, Law, Astronomy, Metaphysics, Ethics, Poetry and Literature, Medical Science, Music, and Dance (all of which existed in this period) was perhaps several times the number of those who were receiving such education institutionally.

The data from Madras regarding the number of boys and girls receiving tuition at their homes is equally pertinent. In comparison to those being educated in schools in Madras, this number is 4.73 times. Though it is true that half of these privately tutored were from amongst the Brahmins and the Vysees, still those from the Soodras form 28.7% of this number, and from the other castes 13%. Furthermore, the Indian part of Madras city at this period was more of a shanty-town. In comparison to the older towns and cities of the Presidency, it was a relatively badly organised place, the status of its Indian inhabitants being rather lower in the social scale than their counterparts in other places like Madura, Tanjore, Trichinopoly, etc. It may be quite probable, therefore, that the number of those privately educated in other districts, if not some 4 to 5 times more than those attending school as in Madras city, was still appreciably large. The observation of Thomas Munro that there was 'probably some error' in the number given of 26,903 being taught at home in Madras city—a remark incidentally which has been made much of by later commentators on the subject—does not have much validity. If the number had been considered seriously erroneous, a new computation for the city of Madras, to which alone it pertained, would have been no difficult matter, especially as this return had been submitted to the Governor a whole year before this comment. It was perhaps required of Thomas Munro—as head of the executive—to express such a reservation. Undoubtedly, it was the sort of comment which the makers of policy in London wished to hear.[55] This draft, however, was followed by the remark that 'the state of education here exhibited, low as it is compared with that of our own country, is higher than it was in most European countries at no very distant period.' As may be guessed from the data pertaining to Britain, the term 'at no very distant period' really meant the beginning of the nineteenth century, which had been the real start of the Day schools for most children in the British Isles.

EDUCATION OF GIRLS

As mentioned earlier, the number of girls attending school was very small. Leaving aside the district of Malabar and the Jeypoor division of Vizagapatam district, the girls from the Brahmin, Chettri, and Vysee castes were practically non-existent in schools. There were, however, some Muslim girls receiving school education: 56 in Trichnopoly, and 27 in Salem. The Hindoo girls who attended school, though again not in any large number, were from the Soodra and other Hindoo castes; and, according to the collectors of Masulipatam, Madura, Tinnevelly and Coimbatore, most of them were stated to be dancing girls, or girls who were presumably going to be *devdasis* in the temples. *Table 8* presents the district and caste-wise number of the girls attending school, or said to be receiving private tuition.

As will be noticed from *Table 9*, the position in Malabar, as also in Jeypoor Zamindary of Vizagapatam district, was much different. The relative numbers of girls and boys attending school in these two areas[56] are presented in *Table 8* below:

In percentage terms of the total, the proportion of girls to boys in school was the highest, 29.7%, in the Jeypoor Zamindary of the Vizagapatam district. Even more surprising, the proportion of Brahmin girls to Brahmin boys in school was as high as 37%. Similarly, in Malabar the proportion of Muslim girls to Muslim

	Brahmins	Vysee	Soodras	Other Castes	Mussalmans	Total Studying	Total Female Population	Other Details
(b) Astronomy		5	19	14		38		
Tamil Speaking								
NORTH ARCOT	1		32	8	11	52	2,78,481	
SOUTH ARCOT			94	10		104	2,02,556	
CHINGLEPUT	3		79	34		116	1,72,886	
TANJORE			125	29		154	1,87,145	
TRICHNOPOLY			66	18	56	140	2,33,723	
MADURA			65	40		105	3,86,682	Stated largely as dancing girls.
TINNELVELLY				117	2	119	2,81,238	
COIMBATORE			82			82	3,21,268	Kykakla caste (Dancing girls).
SALEM			3	28	27	58	5,33,485	
MADRAS							7,33,415	
(i) Ordinary Schools	1	9	113	4		127		
(ii) Charity Schools		2		47		49		
(iii) At home	98	63	220	136		517		

boys in school being at 35.1% is truly astonishing.[57] Even amongst the Vysees, the Soodras and the other castes in Malabar, the proportion of girls to boys was fairly high at 15.5%, 19.1% and 12.4% respectively; the proportion of the totals being 18.3%. That two such widely separated areas (Malabar on the west coast while Jeypoor Zamindary being in the hilly tracts on the southern border of Orissa) had such a sociological similarity requires deeper study.

V

The undertaking of the survey was welcomed by London in May 1825, when it wrote to Madras: 'We think great credit is due to Sir Thomas Munro for having originated the idea of this enquiry.' However, after receipt of the survey information and papers, the reply Madras received ridiculed and altogether dismissed what had been reported to be functioning. In the public despatch of 16 April 1828, Madras was told that 'the information sent', while lacking in certain respects, was 'yet sufficiently complete to show, that in providing the means of a better education for the natives, little aid is to be expected from the instruments of education which already exist.'

ADAM'S REPORT ON INDIGENOUS EDUCATION IN BENGAL AND BIHAR

Thirteen years after the initiation of the survey in the Madras Presidency, a more limited semi-official survey of indigenous education was taken up in the Presidency of Bengal. This was what is known as the celebrated *Adam's Reports*, or to give the full title *Reports on the State of Education in Bengal 1836 and 1838*.[58]

It consists of three reports: the *first*, dated 1st July 1836, being a survey of the available existing information regarding indigenous education and its nature and facilities in the various districts of Bengal (pp.1-126); the *second*, dated 23 December 1835, being a survey of the prevalent situation undertaken by W. Adam in the Thana of Nattore in the district of Rajshahy (pp.127-208, pp.528-578); and the *third*, dated 28 April 1838, being a survey of the situation in parts of Murshedabad, and the whole of the districts of Beerbhoom, Burdwan, South Behar and Tirhoot, ending with Adam's reflections, recommendations and conclusions (pp.209-467).

Adam's Phraseology and Presentation

In spite of the controversies which *Adam's Reports* have given rise to—the most notable one being his mention of there being perhaps 1,00,000 village schools still existing in Bengal and Bihar in some form till the 1830s—the total impression produced by them is one of extensive decay of these institutions. Largely due to Adam's evangelical, moralistic tone, reading them is a rather depressing business. Adam himself was no great admirer of the Indian teacher, or the nature and content of Indian education. However, as Adam started from the view that the British Government of the day should interest itself in the sphere of elementary and higher Indian education and also support it financially, he seemed to have thought it necessary to use all possible arguments and imagery to bring home this point. Under the circumstances, it was necessary for him to dramatise the decay as well as the relative state of ignorance of the teachers, as well as the lack of books, buildings, etc., in order to evoke the desired sympathetic response. Furthermore, it is important to note that W. Adam initially had come to Bengal in 1818 as a Baptist Missionary. Though he left missionary activity after some years, and took to journalism instead, he remained a product of his contemporary British times, a period dominated by two principal currents of opinion: one which saw the necessity of evangelising

India, advocated by men like William Wilberforce; the other, its westernisation, symbolised by men like T.B. Macaulay and William Bentinck. As indicated earlier, both ideas were encompassed in the Charter Act of 1813. Additionally, the reports of Adam, although not formal official documents, were nonetheless sanctioned and financed by the orders of the Governor General himself. Naturally, therefore, while they may imply many things—as do some of the reports of the Madras Presidency collectors—they were nevertheless phrased in such a way as not to lay the blame directly on past government policy and action.

Varied and Valuable Sociological Data

The more important point which comes through Adam's voluminous writing, however, was his remarkable industry and the detail and variety of data which he was able to collect: *first*, from the post-1800 existing sources; and *second*, through his own investigations. While the controversy about his 1,00,000 village schools in Bengal and Bihar is finally forgotten, the material which he provided (regarding the caste composition of the pupils taught as well as the teachers, their average ages at various periods, and the books which were then in use in the districts he surveyed) will still have great relevance.

Selections Reproduced

Some selections from Adam's material are reproduced in the present work (Annexure D). These include: (i) descriptions of elementary education taken from the first and second reports; (ii) description of higher learning, from the first report, (iii) a section on Medical education taken from the second report, based on investigations in Nattore, Rajshahy; and (iv), some tabulations of the basic data for the five surveyed districts contained in the third report. This latter tabulation is given under the following heads:

a. Elementary Schools and caste-wise division of students
b. Elementary Schools and caste-wise division of teachers
c. Books used in Elementary Schools
d. Details of institutions of Sanskritic Learning
e. Books used in Sanskritic Studies
f. Details of institutions of Persian and Arabic Learning
g. Books used in Persian and Arabic Studies
h. Subject and districtwise duration of Study

The First Report: A Survey of Post-1800 Material

Adam's first report is a general statement of the situation and a presentation of the data which he could derive from post-1800 official and other sources. His conclusions: *first*, every village had at least one school and in all probability in Bengal and Bihar with 1,50,748 villages, 'there will still be 1,00,000' villages that have these schools.[59] *Second*, on the basis of personal observation and what he had learnt from other evidence, he inferred that on an average there were around 100 institutions of higher learning in each district of Bengal. Consequently, he concluded that the 18 districts of Bengal had about 1,800 such institutions. Computing the number studying in these latter at the lowest figure of six scholars in each, he also computed that some 10,800 scholars should be studying in them. He further observed that while the elementary schools 'are generally held in the homes of some of the most respectable native inhabitants or very near them', the institutions of higher learning had buildings generally of clay with 'sometimes three or five rooms' and 'in others nine or eleven rooms', with a reading-room which is also of clay. These latter places were also used for the residence of the scholars; and the scholars were usually fed and clothed by the teachers, and where required, were assisted by the local people. After describing the method of teaching in both types of institutions and going into their daily routine, Adam then presented and examined the post-1800 data on the subject, district by district. *Table 10* gives an abstract of this examination.

The Second Report: Survey of Nattore Thana

The second report was wholly devoted to Adam's study of the situation in the Thana of Nattore in the district of Rajshahy. It was like a modern pilot survey in which Adam developed his

Table: 10: INSTITUTIONS OF HIGHER LEARNING ACCORDING TO POST-1800 OTHER SOURCES WITH ADAM'S OBSERVATIONS

District or place		Population Estimate*	Hindoo Muslim Ratio	Institutions of Higher Learning mentioned in Post-1800 accounts with Adam's observations
Dinajpur	(p.16)	30,00,000 (1808)	3 to 7	Buchanan: 16; Adam: some mistake as Districts adjoin
Purnea	(p.16)	14,50,000 (1801) 29,04,380 (1810)	57 to 47	Buchanan: 119
Calcutta	(p.17)	2,00,000 (1822) (Approx.)		Ward: (1818): 28, Scholars: 173
Nuddea	(p.17)	7,64,430 (1802)	11 to 5	Ward: (1818) 31, Scholars: 747, Logic, Law.
	(p.78)			H.H. Wilson: (1820): 25, Scholars 500-600
	(p.79)			Authorities: (1816) 46, Scholars: 380
(i) Koomaru Hutta	(p.81)			Ward: 7-8
(ii) Bhatpara	(p.81)			Ward: 7-8
24 Pergunnahs	(p.22)	16,25,000 (1801)		Hamilton: (1801): 190
(i) Juyunugor	(p.22)			Ward: 17-18
(ii) Mujilee Pooru	(p.22)			Ward: 17-18
(iii) Andoolee	(p.22)			Ward: 10-12
Midnapore	(pp.50-51)	15,00,000 (1801)	6 to 1	Hamilton: None, Adam: 40
Cuttack (Puri)	(p.54)	12,96,365	10 to 1	Stirling: Principal Street of 'Maths'
Hugly	(pp.57-58)	10,00,000 (1801)	3 to 1	Ward: (1818), Hamilton: (1801): 150, Law
(i) Vansariya				Logic: 12-14
(ii) Triveni				:7-8

methods and fashioned his tools for the more extensive survey which was his primary aim. The results of this Nattore survey of 485 villages were tabulated, village by village, by Adam. Further details were provided for some of them in another tabulation. The population of this Thana was 1,20,928; the number of families 30,028 (in the proportion of one Hindoo to two Muslims); the number of elementary schools 27, and of schools of learning 38 (all these latter being Hindoo). In 1,588 families (80% of these being Hindoo), children occasionally received instruction at home. The number of scholars in elementary schools was 262, and education in them was between the ages of 8-14; while the scholars in schools of learning were 397, 136 of these being local persons and 261 from distant places, the latter also receiving both food and lodging. The average period of study in these latter institutions was 16 years, from about the age of 11 to the age of 27. However, while the number in elementary schools was so low, these 485 villages nonetheless had 123 native general medical practitioners, 205 village doctors, 21 mostly Brahmin smallpox inoculators practising according to the old Indian method,[60] 297 women-midwives, and 722 snake conjurors.

The Third Report: Survey of Five Districts

The third report of Adam has the most data. In this report, Adam gives the findings of his surveys in part of the district of Murshedabad (20 *thanas* with a population of 1,24,804 out of 37 *thanas* with a total district population of 9,69,447), and the whole of the districts of Beerbhoom and Burdwan in Bengal, and of South Behar and Tirhoot in Bihar. In one *thana* of each district, Adam carried out the enquiries personally and also gathered additional information. In the rest, it was done for him according to his instructions and proformas by his trained Indian assistants. Earlier, Adam's intention was to visit every village in person; but he found that 'the sudden appearance of a European in a village often inspired terror, which it was always difficult, and sometimes impossible, to subdue.'(p.214) He, therefore, gave up this idea of a personal visit to every village; in part to save time.

Language-wise Division

The total number of schools of all types in the selected districts numbered 2,566. These schools were divided into Bengali (1,098), Hindi (375), Sanskrit (353), Persian (694), Arabic (31), English (8), Girls (6), and infants (1). The number of schools in the district of Midnapore was also given: 548 Bengali schools, 182 Oriya schools, 48 Persian schools, and one English school. *Table 11* gives the position, district-wise:

Table 11: NUMBER AND TYPE OF SCHOOLS

Type of School	Murshidabad (p.223) (part Dist.)	Beerbhom (p.224) (whole Dist.)	Burdwan (p.225) (whole Dist.)	South Behar (p.226) (whole Dist.)	Tirhoot (p-226) (whole Dist.)	Total of Surveyed Dists	Midnapore (p.222) (whole Dist.)
BENGALI	62	407	629			1,098	548
HINDI	5	5		285	80	375	
ORIYA							182
SANSCRIT	24	56	190	27	56	353	
PERSIAN	17	71	93	279	234	694	48
ARABIC	2	2	11	12	4	31	
ENGLISH	2	2	3	1		8	1
GIRLS	1	1	4			6	
INFANTS						1	
	113	544	931	604	374	2,556	779

Four Stages of School Instruction

Adam divided the period spent in elementary schools into four stages. According to him these were: the *first* stage, seldom exceeding ten days, during which the young scholar was taught ‘to form the letters of the alphabet on the ground with a small stick or slip of bamboo’, or on a sandboard. The *second* stage, extending from two and a half to four years, was ‘distinguished by the use of the palm leaf as the material on which writing is performed’, and the scholar was ‘taught to write and read’, and commit ‘to memory the *Cowrie* Table, the Numeration Table as far as 100, the *Katha* Table (a land measure Table), and the *Ser* Table’, etc. The *third* stage extended ‘from two to three years, which are employed in writing on the plantain-leaf.’ Addition, subtraction, and other arithmetical rules were additionally taught during this period. In the *fourth*, and last stage, of up to two years, writing was done on paper. The scholar was expected to be able to read the *Ramayana*, *Mansa Mangal*, etc., at home, as well as be qualified in accounts, and the writing of letters, petitions, etc. *Table 12* indicates the numbers, using the various materials on which writing was done in the surveyed areas.

Elementary Education for All Sections

The first striking point from this broader survey is the wide social strata to which both the taught and the teachers in the elementary schools belonged. It is true that the greater proportion of the teachers came from the Kayasthas, Brahmins, Sadgop and Aguri castes. Yet, quite a number came from 30 other caste groups also, and even the Chandals had 6 teachers. The elementary school students present an even greater variety, and it seems as if every caste group is represented in the student population, the Brahmins and the Kayasthas nowhere forming more than 40% of the total. In the two Bihar districts, together they formed no more than 15 to 16%. The more surprising figure is of 61 Dom, and 61 Chandal school students in the district of Burdwan, nearly equal to the number of Vaidya students, 126, in that district. While Burdwan had 13 missionary schools, the number of Dom and Chandal scholars in them were only four; and, as Adam mentioned, only 86 of the 'scholars belonging to 16 of the lowest castes' were in these missionary schools, while 674 scholars from them were in the 'native schools'.

Teaching of Accounts

Regarding the content of elementary teaching, Adam mentioned various books which were used in teaching. These varied considerably from district to district, but all schools in the surveyed districts, except perhaps the 14 Christian schools, taught accounts. Also, most of them taught both commercial and agricultural accounts. *Table 13* gives a district-wise statement:

Table 13: ACCOUNTS TEACHING IN ELEMENTARY SCHOOLS AND CHRISTIAN SCHOOLS

The age of admission in elementary schools varied from 5 to 8 years, and, that of leaving school from 13 years to 16.5 years.

Institutions of Sanskritic Learning

The schools of Sanskritic learning in the surveyed districts (in all 353) numbered as high as 190 in Burdwan (1,358 scholars) and as low as 27 in South Behar (437 scholars). The teachers (355 in all) were predominantly Brahmins, only 5 being from the Vaidya caste. The subjects predominantly taught were Grammar (1,424 students), Logic (378 students), Law (336 students) and Literature (120 students). Others, in order of numbers studying them, were Mythology (82 students), Astrology (78 students), Lexicology (48 students), Rhetoric (19 students), Medicine (18 students), Vedanta (13 students), Tantra (14 students), Mimansa (2 students), and Sankhya (1 student). The duration of the study and the ages when it was started and completed varied a great deal from subject to subject, and also from district to district.

The study of Grammar started at the earliest age (9 to 12 years) and of Law, Mythology, Tantras, etc. after the age of 20. The period of study ordinarily lasted from about 7 to 15 years.

Institutions Teaching Persian and Arabic

Those studying Persian (which Adam treated more as a school subject than as a matter of higher learning) numbered 3,479, the largest, 1,424, being in South Behar. The age of admission in them ranged from 6.8 years to 10.3 years, and the study seemed to have continued for some 11 to 15 years. Over half of those studying Persian were Hindoos, the Kayasthas being predominant.[61]

Arabic was being studied by 175 scholars, predominantly Muslims; but 14 Kayasthas, 2 Aguris, 1 Teli, and 1 Brahmin were also students of Arabic. The books used in Persian learning were numerous and an appreciable number for the study of Arabic.

Finally, as far as age was concerned, the teachers in all types of institutions were largely in their thirties.

VI

DR G.W. LEITNER ON INDIGENOUS EDUCATION IN THE PANJAB

Some 45 years after Adam, Dr G. W. Leitner, (one time Principal of Government College, Lahore, and for sometime acting Director of Public Instruction in the Panjab) prepared an even more voluminous survey of indigenous education there.[62] The survey is very similar to that of W. Adam. Leitner's language and conclusions, however, were more direct and much less complementary to British rule. Incidentally, as time passed, the inability of the British rulers to face any criticism grew correspondingly.

They had really begun to believe in their ‘divinely ordained’ mission in India, and other conquered areas.[63]

At any rate, Leitner’s researches showed that at the time of the annexation of the Panjab, the lowest computation gave ‘3,30,000 pupils in the schools of the various denominations who were acquainted with reading, writing and some method of computation.’ This is in contrast with ‘little more than 1,90,000’ pupils in 1882. Furthermore, 35-40 years previously, ‘thousands of them belonged to Arabic and Sanskrit colleges, in which oriental Literature and systems of oriental Law, Logic, Philosophy, and Medicine were taught to the highest standards.’ Leitner went into great detail, district by district, basing himself on earlier official writings; and, then carried out a detailed survey of his own regarding the position in 1882. A few brief extracts from this work, pertaining to his general statement, the type of schools which had existed earlier, and the list of books used in the Sanskritic schools is included amongst the documents reproduced in this work (Annexure E).

In the documents reproduced in this work, or in those others of the eighteenth, or early nineteenth century on the subject of education in India, while there is much on the question of higher learning, especially of Theology, Law, Medicine, Astronomy, and Astrology, there is scarcely any reference to the teaching and training in the scores of technologies, and crafts which had then existed in India. There is also little mention of training in Music, and Dance. These latter two, it may be presumed, were largely taken care of by the complex temple organisations.

The major cause of the lack of reference about the former, however, is obviously because those who wrote on education—whether as government administrators, travellers, Christian missionaries, or scholars—were themselves uninterested in how such crafts were taught, or passed from one generation to another. Some of them were evidently interested in a particular technology, or craft: as indicated by the writings on their manufacture of iron and steel, the fashioning of agricultural tools, the cotton and silk textiles, the materials used in architecture, and buildings, the materials used in the building of ships, the manufacture of ice, paper, etc. But even in such writings, the interest lay in the particular method and technology and its technological and scientific details; and, not in how these were learnt.

Yet another cause for the lack of information on the teaching of techniques and crafts may possibly lie in the fact that ordinarily in India most crafts were basically learnt in the home. What was termed apprenticeship in Britain (one could not practise any craft, profession, etc., in England without a long and arduous period under a master craftsman, or technologist) was more informal in India, the parents usually being the teachers and the children the learners. Another reason might have been that particular technologies or crafts, even like the profession of the digging of tanks, or the transportation of commodities were the function of particular specialist groups, some of them operating in most parts of India, while others in particular regions, and therefore any formal teaching and training in them must have been a function of such groups themselves. Remarks available to the effect that, 'it is extremely difficult to learn the arts of the Indians, for the same caste, from father to son, exercises the same trade and the punishment of being excluded from the caste on doing anything injurious to its interests is so dreadful that it is often impossible to find an inducement to make them communicate anything',[64] appear to indicate some organisation of individual technologies at group levels. However, to know anything regarding their teaching, the innovations and improvisations in them, (there must have been innumerable such instances even if these were on a decline), it is essential to have much more detailed information on such groups, the nature of these technologies, and what in essence constituted a formal, or informal apprenticeship in the different crafts. On this so far we seem to have little information.

The following indicative list of the crafts listed in some of the districts of the Madras Presidency (collected in the early 19th century records for levying tax on them) may give, however, some idea of their variety.

TANKS, BUILDINGS, ETC.

Stone-cutters
Marble mine workers
Chunam makers
Sawyers
Wood woopers (Wood cutters)
Bamboo cutters
Wudders (Tank diggers)
Brick-layers

METALLURGY

Iron ore collectors
Iron manufacturers
Iron forge operators
Iron furnaces operators
Workers of smelted metal into bars
Brass-smiths
Copper-smiths
Lead washers
Gold dust collectors
Iron-smiths
Gold-smiths
Horse-shoe makers

TEXTILES

Cotton cleaners
Cotton beaters
Cotton carders
Silk makers
Spinners
Ladup, or Penyasees cotton spinners
Chay thread makers
Chay root diggers (a dye)
Rungruaze, or dyers
Indigo maker
Barber weavers
Boyah weavers
Smooth and glaze cloth men
Fine cloth weavers
Coarse cloth weavers
Chintz weavers
Carpet weavers
Sutrenze carpet weavers
Cot tape weavers
Cumblee weavers
Thread purdah weavers
Gunny weavers
Pariah weavers (a very large
Mudda wada, or dyers in red
number)
Mussalman weavers
Dyers in indigo
Loom makers
Silk weavers

OTHER CRAFTSMEN

Preparers of earth for bangles
Bangle makers
Paper makers
Fire-works makers
Oilmen
Soap makers
Salt makers
Earth salt manufacturers
Salt-petre makers
Arrack distillers
Collectors of drugs and roots
Utar makers, druggists

MISCELLANEOUS

Boat-men
Fishermen
Sandal makers
Umbrella makers

Rice-beaters
Toddy makers
Preparers of earth
for washermen
Washermen
Barbers
Tailors
Basket makers
Mat makers
Shoe makers
Pen painters
Mat makers
Carpenters
Dubbee makers
Winding instrument makers
Seal makers
Chucklers

There is a sense of widespread neglect and decay in the field of indigenous education within a few decades after the onset of British rule. This is the major common impression which emerges from the 1822-25 Madras Presidency data, the report of W. Adam on Bengal and Bihar 1835-38, and the later Panjab survey by G.W. Leitner. If studies of the detailed data pertaining to the innumerable crafts, technologies and manufactures of this period, or for that matter of social organisation were to be made, the conclusions in all probability will be little different. On the other hand, the descriptions of life and society provided by earlier European accounts (i.e. accounts written prior to the onset of European dominance) of different parts of India, and the data on Indian exports relating to this earlier period (notwithstanding the political turmoil in certain parts of India), on the whole leaves an impression of a society which seems relatively prosperous and lively. The conclusion that the decay noticed in the early 19th century and more so in subsequent decades originated with European supremacy in India, therefore, seems inescapable. The 1769-70 famine in Bengal (when, according to British record, one-third of the population actually perished), may be taken as a mere forerunner of what was to come.

In the context of some historical dialectic, however, such a decay might have been inevitable; perhaps, even necessary, and to be deliberately induced. For instance, Karl Marx, as such no friend of imperialism or capitalism, writing in 1853 was of the view, that, 'England has to fulfill a double mission in India: one destructive, the other regenerating—the annihilation of the old Asiatic society, and the laying of the material foundation of Western society in Asia.'[65] However, it is not India alone which experienced this phenomenon of deliberate destruction. Other areas of the world, especially the Americas and Africa, seem to have experienced such destruction to an even greater extent. The nearly total annihilation of the native people of the Americas—after their subjugation by Europe from 1500 A.D. onwards—is an occurrence of equally great import. A native population estimated by modern scholars to have been in the range of 90 to 112 million around 1500 A.D.,[66] —far more numerous than the estimated total population of Europe then—had dwindled to merely a few million by the end of the 19th century. It is probable that while differing in extent and numbers, similar destruction and annihilation had occurred in different parts of the world through conquest and subjugation at various times during human history. Further, quite possibly, no people or culture in the world can altogether claim innocence for itself from any participation at one time or another in such occurrences. Nonetheless, whatever may be the case regarding the world before 1500 A.D., the point is that after this date, ancient, functioning, established cultures in most areas of the world, if not wholly eliminated, had become largely depressed due to the expansion of European dominance. This requires little proof. It is obvious.

During the latter part of the 19th century, impressions of decay, decline and deprivation began to agitate the mind of the Indian people. Such impressions no doubt resulted from concrete personal, parental and social experience of what had gone before. They were, perhaps, somewhat exaggerated at times. By 1900, it had become general Indian belief that the country had been decimated by British rule in all possible ways; that not only had it become impoverished,[67] but it had been degraded to the furthest possible extent; that the people of India had been cheated of most of what they had; that their customs and manners were ridiculed, and that the infrastructure of their society mostly eroded. One of the statements which thus came up was that the ignorance and illiteracy in India was caused by British rule; and, conversely, that at the beginning of British political dominance, India had had extensive education, learning and literacy. By 1930, much had been written on this point in the same manner as had been written on the deliberate destruction of Indian crafts and industry, and the impoverishment of the Indian countryside. However, to many within the expanding strata of westernised Indians—whether Marxists, Fabians, or capitalist-roaders, their views on India and their contempt for it almost equalled that of William Wilberforce, James Mill, or Karl Marx—such charges seemed farfetched, and even if true, irrelevant.

It is against this background that, during his visit in 1931 to attend the British-sponsored conference on India (known as the Round Table Conference), Mahatma Gandhi was invited to address the Royal Institute of International Affairs, London. In this address Gandhiji also briefly dwelt on the causes of illiteracy in India. What he said seemed to have made sparks fly.

The meeting held on 20 October 1931, under the auspices of the Institute, is reported to have been attended by influential English men and women drawn from all parts of England, and was presided over by Lord Lothian.[68] The subject on which Gandhiji spoke was 'The Future of India'. Before describing this future, however, he dealt with several issues, like: (i) the Hindu-Muslim-Sikh problem, (ii) the problem of untouchability, and (iii) 'the deep and ever deepening poverty' of the 85% of the Indian people who lived in the villages. From this he moved on to the problems which required urgent attention and how 'if the Congress had its way' they would be dealt with. Amongst the foremost, he placed 'the economic welfare of the masses' as well as the provision of adequate occupations for those requiring them. He also addressed possible solutions to the problems of sanitation and hygiene, and of medical assistance which he felt not only needed packets of quinine, etc., but more so milk and fruit. Next, he turned his attention to education; and, from that, to the neglect of irrigation and the need for using long-known indigenous methods and techniques to achieve it. In conclusion, he stated that while he had told them 'what we would do constructively', yet 'we should have to do something destructive also.' As illustrative of the required destruction, he mentioned 'the insupportable weight of military and civil expenditure' which India could ill afford. Regarding the former, he stated that 'if I could possibly have my way, we should get rid of three-quarters of the military expenditure.' Regarding civil expenditure he gave an instance of what he meant: 'Here the Prime Minister gets fifty times, the average income; the Viceroy in India gets five thousand times the average income.' He went on to add: 'From this one example you can work out for yourselves what this civil expenditure also means to India.'

Gandhiji's observation on education emphasized two main points: (i) 'that today India is more illiterate than it was fifty or a hundred years ago'; and (ii) that 'the British administrators', instead of looking after education and other matters which had existed, 'began to root them out. They scratched the soil and began to look at the root, and left the root like that and the beautiful tree perished.' He stated all this with conviction and a sense of authority. He said that he was 'without fear' of his 'figures being challenged successfully.'

The challenge came immediately, however, from Sir Philip Hartog, a founder of the School of Oriental Studies, London,[69] a former vice-chancellor of the University of Dacca and member and chairman of several educational committees on India set up by the British between 1918 and 1930. After questioning Gandhiji at the meeting, a long correspondence ensued between them during the next 5-6 weeks, ending with an hour long interview which Philip Hartog had with the Mahatma. In the interview, Philip Hartog was referred to some of the sources which Gandhiji had relied on, including two articles from *Young India* of December 1920 by Daulat Ram Gupta: (i) 'The Decline of Mass Education in India,' and (ii) 'How Indian Education was crushed in the Panjab.' These articles were largely based on Adam's reports and G.W. Leitner's book and some other officially published material from the Panjab, Bombay and Madras. These, however, did not seem sufficient proof to Philip Hartog, and he repeatedly insisted that Gandhiji should withdraw the statement he had made at the Chatham House meeting. Gandhiji promised that after his return to India, he would look for such material which Hartog could treat as substantiating what Gandhiji had said, adding that 'if I find that I cannot support the statement made by me at Chatham House, I will give my retraction much wider publicity than the Chatham House speech could ever attain.'

Another important point which, according to Hartog, emerged during his interview was that Gandhiji 'had not accused the British Government of having destroyed the indigenous schools, but [that] they had let them die for want of encouragement.' To this, Hartog's reply was that 'they had probably let them die because they were so bad that they were not worth keeping.'

In the meantime, Hartog had been working and seeking opinion, advice and views of the historian Edward J. Thompson. Thompson agreed with Hartog that Gandhiji could not possibly be right; and that he himself also did not 'believe we destroyed indigenous schools and indigenous industry out of malice. It was inevitable.' He felt nonetheless that, with regard to general education, 'we did precious little to congratulate ourselves on until the last dozen years.'[70] In a further letter, Thompson elaborated his views on the subject: on how little was done until after 1918; that the 'very hopelessness of the huge Indian job used to oppress' even those who had often 'first class record of intellect' in places like Oxford 'before entering the ICS.' He noted further: 'I am reading old records by pre-mutiny residents, they teem with information that makes you hope that the Congresswallah will never get hold of it.' Somehow the correspondence between Hartog and Edward Thompson ended on a sour note. Perhaps, it did not provide Hartog the sort of intellectual or factual support he was actually looking for. At any rate, after the interview with Gandhiji, Hartog finally despatched his rebuttal of Gandhiji's statement (as intended from the beginning) for publication in *International Affairs*.[71] In this he concluded that 'the present position is that Mr Gandhi has so far been unable to substantiate his statement in any way'; but 'he has undertaken to retract that statement, if he cannot support it.'

Within a few days of reaching India, Gandhiji was put in Yervada Prison. From there he wrote to Hartog on 15 February 1932 informing him of his inability at that moment to satisfy him, mentioning that he had asked Prof K.T. Shah to look into the matter. K.T. Shah's long and detailed letter reached Hartog soon after. In it, Shah also referred to the various known writings on the subject including those of Max Mueller, Ludlow, G.L. Prendergast, and the more celebrated Thomas Munro, W. Adam, and G.W. Leitner (already referred to in the foregoing pages). For Bombay, Shah quoted G.L. Prendergast, a member of the Council in the Bombay Presidency (briefly referred to earlier) who had stated in April 1821:

> I need hardly mention what every member of the Board knows as well as I do, that there is hardly a village, great or small, throughout our territories, in which there is not at least one school, and in larger villages more; many in every town, and in large cities in every division; where young natives are taught reading, writing and arithmetic, upon a system so economical, from a handful or two of grain, to perhaps a rupee per month to the school master, according to the ability of the parents, and at the same time so simple and effectual, that there is hardly a cultivator or petty dealer who is not competent to keep his own accounts with a degree of accuracy, in my opinion, beyond what we meet with amongst the lower orders in our own country; whilst the more splendid dealers and bankers keep their books with a degree of ease, conciseness, and clearness I rather think fully equal to those of any British merchants.[72]

Knowing what Hartog considered as sufficient proof, Shah began his letter by saying that he 'need hardly point out that at the time under reference, no country in the world had like definite, authoritative, statistical information of the type one would now recognise as proper proof in such discussions'; and that 'all, therefore, that one can expect by way of proof in such matters, and at such a time, can only be in the form of impressions of people in a position to form ideas a little better and more scientific than those of less fortunately situated, or less well-endowed, observers.' Shah finally concluded with the view that 'the closer enquiry of this type conducted by Leitner is far more reliable, and so also the *obiter dicta* of people in the position to have clear impressions'; and felt that 'even those impressions must be held to give rather an underestimate than otherwise.'

But Shah's long letter was a wasted effort as far as Hartog was concerned. It constituted merely a further provocation. In his reply, Hartog told Shah that 'your letter does not touch the main question which I put to Mr Gandhi'; and concluded that 'I am afraid that I am altogether unable to accept your conclusion with regard to the history of literacy in Bengal during the past 100 years, of which there remains a good deal to be said.'

Though it is not fair to compare individuals and to speculate on the motivations which move them, it does seem that at this stage Sir Philip Hartog had feelings similar to those experienced by W.H. Moreland after the latter had read Vincent Smith's observations (in his book on *Akbar the Great Mogul*) that 'the hired landless labourer in the time of Akbar and Jahangir probably had more to eat in ordinary years than he has now.'[73] In reviewing the book, Moreland had then said, 'Mr Vincent Smith's authority in Indian History is so deservedly great that this statement, if allowed to stand unquestioned, will probably pass quickly into a dogma of the schools; before it does so, I venture to plead for further examination of the data.'[74] And from then on, Moreland seems to have set himself the task of countering such a 'heretical view, and of stopping it from becoming a dogma of the schools.'

Whatever his motivation, Philip Hartog set himself the task of proving Gandhiji wrong on this particular issue. The result was presented in three 'Joseph Payne Lectures for 1935-36' delivered at the University of London Institute of Education under the title, *Some Aspects of Indian Education: Past and Present.*[75] The lectures were presented along with three Memoranda: (a) Note on the statistics of literacy and of schools in India during the last hundred years. (b) The Reports of William Adam on Vernacular Education in Bengal and Bihar 1835-38, and the legend of the '1,00,000 schools', and (c) Dr G.W. Leitner and Education in the Panjab 1849-82. These were published in early 1939 by the Oxford University Press under the above title. In Memorandum 'A', using the low figures sent by A.D. Campbell for the district of Bellary, Hartog questioned Thomas Munro's calculation that 'the proportion of males educated in schools was nearer one-third than one-fourth.' He countered instead 'that Munro's figures may have been over-estimates based on the returns of collectors less careful and interested in education than Campbell.' Hartog's conclusion at the end was that 'until the action taken by Munro, Elphinstone, and Bentinck in the three presidencies, the British Government had neglected elementary education to its detriment in India. But I have found no evidence that it tried to destroy or uproot what existed.' In a footnote, Hartog further observed: 'In Great Britain itself it was not until 1833 that the House of Commons made a grant of 30,000 pounds for the purposes of education.' He also praised various Indian personalities, and more so India's quaint mixture of 'most ancient and most modern'.

In his Preface, after referring to 'the imaginary basis for accusations not infrequently made in India that the British Government systematically destroyed the indigenous system of elementary schools and with it a literacy which the schools are presumed to have created', Hartog observed: 'When Mr Gandhi, in an address given at the Royal Institute of International Affairs on 20 October 1931, lent his powerful support to those accusations, and challenged contradiction, it was obviously necessary to re-examine the facts.'[76]

It may be fair to observe that, despite his considerable learning and experience, Hartog seemed to have lacked both imagination and a sense of history. He was far too committed to the dogmas of pre-1939 Britain. His immigrant Jewish background may have accentuated such an outlook further. Whatever the reasons, it seemed inconceivable to Hartog that late eighteenth, or early nineteenth century India could have had the education and facilities which Gandhiji and others had claimed. Similarly, it had been inconceivable to William Wilberforce, 125 years earlier, that the Hindoos could conceivably have been civilised (as was stated by many British officers and scholars who in Wilberforce's days had had long personal experience of life in India) without the benefits of Christianity. To Hartog, as also to Edward Thompson, and before them to an extent even to W. Adam, and some of the Madras Presidency Collectors, it was axiomatic that these Indian educational institutions amounted to very little, and that the Indian system had 'become merely self-perpetuating, and otherwise barren.'

Besides Gandhiji's statement, two other facts seem to have had quite an upsetting effect on Philip Hartog. The *first*, already referred to, were the writings of G.W. Leitner. The *second* seems to have hurt him even more: this was a statement relating to what Hartog called 'what of the immediate future'. In this context, Hartog noted that, 'an earnest Quaker missionary has predicted that under the new regime [evidently meaning the post-British regime] there will be a Counter-Reformation in education, which will no longer be Western but Eastern'; and, he observed: 'Thus India will go back a thousand years and more to the old days...to those days when she gave out a great wealth of ideas, especially to the rest of Asia, but accepted nothing in return.' Such a prospect was galling indeed to Philip Hartog, burdened as he was—like his illustrious predecessors—with the idea of redeeming India morally as well as intellectually, by pushing it along the western road.

As Gandhiji was the prime cause of this effort, Hartog sent a copy of his lectures to him. He wrote to Gandhiji that he had 'little doubt that you will find that a close analysis of the facts reveals no evidence to support the statement which you made at the Royal Institute of International Affairs'; adding that Gandhiji 'will therefore feel justified now in withdrawing that statement.'

Gandhiji replied some months later. His letter had all the ingredients of a classic reply: 'I have not left off the pursuit of the subject of education in the villages during the pre-British period. I am in correspondence with several educationists. Those who have replied do support my view but do not produce authority that would be accepted as proof. My prejudice or presentiment still makes me cling to the statement I made at Chatham House. I don't want to write haltingly in *Harijan*. You don't want me merely to say that the proof I had in mind had been challenged by you!'

There the matter ended as far as Gandhiji was concerned. On 10 September 1939, however, after learning of Gandhiji's statement regarding the War in Europe, Hartog wrote him a very grateful letter:

> I cannot wait to express to you my profound gratitude, shared, I am sure by an innumerable number of my fellow countrymen, all over the world, for the attitude you have taken up in regard to the present War at your interview with the Viceroy, reported in the *Times*.

Hartog's book of lectures led to much immediate writing in India on the subject. Even a new edition of the complete *Adam's Reports* was published by the University of Calcutta. Yet, what was written produced the same data and analysis all over again; and, in the main, covered the same ground, and advanced more or less the same arguments as had already been advanced by K.T. Shah in his long letter to Philip Hartog in February 1932.[77]

VII

The significance of what Gandhiji said at Chatham House in October 1931 ought to have been understood not in the literal way in which Philip Hartog did, but within the total context of Mahatma Gandhi's address, which attempted to reveal the overall disruption and decline of Indian society and its institutions under British rule. That a great decay had set in by the 1820s, if not a few decades earlier, in the sphere of education was admitted by the Madras Presidency survey, as well as by W. Adam with regard to Bengal and Bihar. In 1822-25, the number of those in ordinary schools was put at over 1,50,000 in the Madras Presidency. Evidently, the inference that the number was appreciably, perhaps a great deal higher some 20 or 30 years earlier, cannot be ruled out. At any rate, nowhere was there any suggestion made that it was much less than it had been in 1822-25. The population of the Madras Presidency in 1823 was estimated at 1,28,50,941, while the population of England in 1811 was estimated at 95,43,610. *It may be noted from this that, while the differences in the population of the two regions were not that significant, the numbers of those attending the various types of schools (Charity, Sunday, Circulating) in England were in all in the neighbourhood of around 75,000 as compared to at least double this number within the Madras Presidency. Further, more than half of this number of 75,000 in English schools consisted of those who attended school at the most only for 2-3 hours on a Sunday.*

However, after about 1803, every year a marked increase took place in the number of those attending schools in England. The result: the number of 75,000 attending any sort of school around 1800 rose to 6,74,883 by 1818, and 21,44,377 in 1851, i.e. an increase of about 29 times in a period of about fifty years. It is true that the content of this education in England did not improve much during this half century. Neither did the period spent in school increase: from more than an average of one year in 1835 to about two years in 1851. The real implication of Gandhiji's observation, and of the information provided by the Madras Presidency collectors, W. Adam and G.W. Leitner, is that for the following 50-100 years, what happened in India—within the developing situation of relative collapse and stagnation—proved the reverse of the developments taking place in England. It is such a feeling, and the intuition of such an occurrence, that drove Gandhiji, firstly, to make his observation in London in October 1931, and secondly, disinclined to withdraw it eight years later. Gandhiji seemed to be looking at the issue from a historical, social, and a human viewpoint. In marked contrast, men like Sir Philip Hartog, as so commonly characteristic of the specialist, were largely quibbling about phrases; intent solely on picking holes in what did not fit the prevailing western theories of social and political development.

Statistical comparisons were what Sir Philip Hartog and many others in his time wanted. And these can, to a large extent, settle this debate: some comparison of the 1822-25 Madras school-attending scholars is made here with the Madras Presidency data pertaining to the 1880s and 1890s. Because of incompleteness of the earlier data available from Bengal and Bihar, and also from the Presidency of Bombay,[78] such a comparison does not seem possible for these areas, much less for the whole of India.

According to the 1879-80 Report of the Director of Public Instruction for the Madras Presidency, the total number of educational institutions of all types (including colleges, secondary, middle and primary schools, and special, or technical institutions) then numbered 10,553. Out of these, the primary schools numbered 10,106. The total number attending them: 2,38,960 males, and 29,419 females. The total population of the Presidency at this time is stated as 3,13,08,872. While the number of females attending these institutions was evidently larger in 1879-80 compared to 1822-25, the proportionate numbers of males was clearly much reduced. Using the same computation as those applied in 1822-25 (i.e. one-ninth of the total population treated as of school-going age), those of this age amongst the male population (taking males and females as equal) would have numbered 17,39,400. The number of males in primary schools being 2,18,840, the proportion of this age group in schools thus turns out to be 12.58%. This proportion in the decayed educational situation of 1822-25 was put at one-fourth, i.e. at 25%. If one were to take even the total of all those in every type of institution, i.e. the number 2,38,960, the proportion in 1879-80 rises only to 13.74%.

From 1879-80 to 1884-85, there was some increase, however, to be found. While the population went down slightly to 3,08,68,504, the total number of male scholars went up to 3,79,932, and that of females to 50,919. Even this larger number of male scholars came up only to 22.15% of the computed school-age male population; and, of those in primary schools to 18.33%. These figures are much lower than the 1822-25 officially calculated proportion. Incidentally, while there was an overall increase in number of females in educational institutions, the number of Muslim girls in such institutions in the district of Malabar in 1884-85 was only 705. Here it may be recollected that 62 years earlier, in August 1823, the number of Muslim girls in schools in Malabar was 1,122; and, at that time, the population of Malabar would have been below half of that in 1884-85.

Eleven years later in 1895-96, the number in all types of educational institutions increased further. While the population had grown to 3,56,41,828, the number of those in educational institutions had increased to 6,81,174 males, and 1,10,460 females. It is at this time then that the proportion (taking all those males attending educational institutions) rose to 34.4%: just about equal to the proportion which Thomas Munro had computed in 1826 as one-third (33.3%) of those receiving any education whether in indigenous institutions, or at home. Even at this period, i.e. 70 years after Munro's computation, however, the number of males in primary education was just 28%.

Coming to 1899-1900, the last year of the nineteenth century, the number of males in educational institutions went up to 7,33,923 and of females to 1,29,068. At this period, the number of school-age males was calculated by the Madras Presidency Director of Public Instruction as 26,42,909, thus giving a percentage of 27.8% attending any educational institution. Even taking a sympathetic view of the later data, what clearly comes out of these comparisons is that the proportion of those in educational institutions at the end of the nineteenth century was still no larger than the proportions estimated by Thomas Munro of the number attending the institutions of the decaying indigenous system of the Madras Presidency in 1822-25.

The British authorities in the late nineteenth century must have been tempted—as we find state authorities are in our own times—to show their achievements in brighter hues and thus err on the side of inflating figures: therefore, this later data may be treated with some scepticism. This was certainly not the case with the 1822-25 data which, in the climate of that period, could not have been considered inflated in any sense of the word.

From the above, it may be inferred that the decay which is mentioned in 1822-25 proceeded to grow in strength during the next six decades. During this period, most of the indigenous institutions more or less disappeared. Any surviving remnants were absorbed by the late 19th century British system. Further, it is only after 1890 that the new system begins to equal the 1822-25 officially calculated proportions of males in schools quantitatively. Its quality, in comparison to the indigenous system, is another matter altogether.

The above comparison of the 1822-25 Madras indigenous education data with the data from the 1880s and 1890s period also seems to provide additional support—if such support were required—to the deductions which G.W. Leitner had come to in 1882. These reveal the decline of indigenous education in the Panjab in the previous 35-40 years.

VIII

During this prolonged debate, the critical issue that was seldom touched upon and about which in their various ways, the Madras Presidency collectors, the reports of Adam, and the work of Leitner provided a variety of clues, was how all these educational institutions—the 1,00,000 schools in Bengal and Bihar, and a 'school in every village' according to Munro and others—were actually organised and maintained. For, it is ridiculous to suppose that any system of such wide and universal dimensions could ever have maintained itself without the necessary conceptual and infrastructural supports over any length of time.

Modern Indians tend to quote foreigners in most matters reflecting on India's present, or its past. One school of thought uses all such foreign backing to show India's primitiveness, the barbaric, uncouth and what is termed 'parochial' nature of the customs and manners of its people, and the ignorance, oppressions and poverty which Indians are said to have always suffered from. To them India for most of its past had lived at what is termed, the 'feudal' stage or what in more recent Marxist terminology is called the 'system of Asiatic social organisms'. Yet, to another school, India had always been a glorious land, with minor blemishes, or accidents of history here and there; all in all remaining a land of 'Dharmic' and benevolent rulers. For yet others subscribing to the observations of the much-quoted Charles Metcalfe, and Henry Maine, it has mostly been a happy land of 'village republics'.

Unfortunately, due to their British-oriented education, or because of some deeper causes (like the scholastic and hair-splitting tendency of Brahmanical learning), Indians have become since the past century, too literal, too much caught up with mere words and phrases. They have lost practically all sense of the symbolic nature of what is said, or written.[79] It is not surprising, therefore, that when Indians think of village republics, what occurs to them is not what the word 'republic' implies in substance; but, instead, the visual images of its shell, the elected assembly, the system of voting, etc.

What Charles Metcalfe, and especially Henry Maine wrote on this point was primarily on the basis of the earlier British information, i.e. what had been derived from the late eighteenth and early nineteenth century British travellers, administrators, etc., as well as from the writings of other Europeans before them. It implied (and, quite naturally, the British had no particular reason to spell it out for us Indians) that the 'village' (it is immaterial how they defined it), to an extent, had all the semblance of the State: it controlled revenue and exercised authority within its sphere. How this 'village' State was constituted, (whether in the manner of an oligarchy, or by the representation of the various castes, crafts, or other groups within it, or by representation of all families, or in some other manner), while important in itself as a subject for exploration, was not its basic element. The basic element of this 'village republic' was the authority it wielded, the resources it controlled and dispensed, and the manner of such resource utilisation. Notwithstanding all that has been written about empires—Ashokan, Vijayanagar, Mughal, etc., and of 'oriental despotism' it is beyond any doubt that throughout its history, Indian society and polity has basically been organised according to non-centralist concepts. This fact is not only brought out in recent research. The eighteenth and early nineteenth century European reports, manuscript as well as published writings also bear evidence to it. That the annual exchequer receipts of Jahangir did not amount to more than 5% of the computed revenue of his empire, and that of Aurangzeb (with all his zeal for maximising such receipts), did not ever exceed 20% is symptomatic of the concepts and arrangements which governed Indian polity.

It can be argued of course that such a non-centralist polity made India politically weak; or, rather, soft in the military sense—given that only hierarchical and centralist states are politically and militarily strong and viable. This may all be true and is worthy of serious consideration. Nonetheless, the first requisite is to understand the nature of Indian society and polity especially as it functioned two or three centuries ago. Further, its various dimensions and contours, strengths and weaknesses need to be known, and not only from European writings but much more so from Indian sources; that is from sources rooted in the traditions and beliefs of various areas, communities, groups, etc.,—with special attention being paid to their own images of the society of which they were a part.

It is suggested here—and there is voluminous data scattered in the British records themselves which confirm the view—that in terms of the basic expenses, both education and medical care, like the expenses of the local police, and the maintenance of irrigation facilities, had primary claims on revenue. It was primarily this revenue which not only maintained higher education, but also—as was sometimes admitted in the British records—the system of elementary education.[80] It is quite probable that, in addition to this basic provision, the parents and guardians of the scholars also contributed a little according to their varying capacities by way of presents, occasional feeding of the unprovided scholars, etc., towards the maintenance of the system. But to suppose that such a deep rooted and extensive system which really catered to all sections of society could be maintained on the basis of tuition fees, or through not only gratuitous teaching but also feeding of the pupils by the teachers, is to be grossly ignorant of the actual functioning of the Indian social arrangements of the time.

According to the Bengal-Bihar data of the 1770s and 1780s, the revenues of these areas were divided into various categories in addition to what was called the *Khalsa*, i.e., the sources whose revenue was received in the exchequer of the ruling authority of the province, or some larger unit. These categories together (excluding the *Khalsa*), seem to have been allocated or assigned the major proportion of the revenue sources (perhaps around 80% of the computed revenue of any area). Two of these categories were termed *Chakeran Zemin*, and *Bazee Zemin* in the Bengal and Bihar records of this period. The former, *Chakeran Zemin*, referred to recipients of revenue who were engaged in administrative, economic, accounting activities, etc., and were remunerated by assignments of revenue. The latter, *Bazee Zemin,* referred to those who—according to the British—were in receipt of what were termed ‘religious and charitable allowances’. A substantial portion of these religious allowances was obviously assigned for the maintenance of religious places: largely temples of all sizes and celebrity, but also mosques, *dargahs*, *chatrams*, *maths*, etc. Another part was assigned to the *agraharams*, or what perhaps were also termed *Brahmdeya* in South India as well as in Bengal. Yet, other assignments were given over to a variety of persons: to great and other pundits, to poets, to joshis, to medical practitioners, to jesters and even for such purposes as defraying the expenses of carrying Ganga water in areas of Uttar Pradesh to certain religious shrines on certain festivals.[81]

Regarding the extent of such assignments from Hedgelee in Bengal, it was stated in 1770 that 'almost one-half of the province is held upon free tenure' under the *Bazee Zemin* category.[82] The number of these *Bazee Zemin* (one may reasonably assume the term included individuals, groups as well as institutions) in many districts of Bengal and Bihar was as high as 30,000 to 36,000 recipients for the district. According to H.T. Prinsep,[83] in one district of Bengal around 1780, the applications for the registration of *Bazee Zemin* numbered 72,000.

The position in the Madras Presidency was not very different, even after all the disorganisation, dispossession and demolition of the period 1750-1800, during which the British made themselves masters of the whole area. As late as 1801, over 35% of the total cultivated land in the Ceded Districts (the present Rayalseema area and the Kannada District of Bellary) came under the category of revenue free assignments, and it was the task of Thomas Munro to somehow reduce this quantity to a mere 5% of the total cultivated land. The reduction intended in the Ceded Districts was also carried out in all other districts, earlier in some, and later in others, and in some, the dispossession of such vast numbers of assignees of revenue took a long time.

The returns from the various districts of the Madras Presidency, especially during the years 1805-1820, provide much information on the varied nature of these revenue assignments (or grain, or money allowances). In some measure, these had till then continued to be permitted, or disbursed to a variety of institutions and to individuals in the several districts. Such information usually got collected whenever the government was contemplating some new policy, or some further steps concerning one, or more categories of such assignees, or those to whom any sort of allowances were being paid. As illustrative of such information, a return from the district of Tanjore of April 1813, relating to the money assignments received by 1,013 big and small temples,[84]—which by this time were mostly minute—and between 350-400 individuals is reproduced at the end of this book (Annexures G and H). These payments amounted at this time to a total of Star Pagodas 43,037 for the temples, and Star Pagodas 5,929 to the individuals, annually. A Star Pagoda was valued at about three and one-half rupee.

What was true of Bengal, Bihar and the Madras Presidency applied equally to other areas: whether of the Bombay Presidency, Panjab, or in the Rajasthan States. The proportions of revenue allocated to particular categories—as far as the British record indicates—also seem fairly similar. It will not be far wrong to assume that about a quarter to one-third of the revenue paying sources (not only land, but also sea ports, etc.) were, according to ancient practice, assigned for the requirements of the social and cultural infrastructure till the British overturned it all.

Further still, the rate of assessment which was paid by cultivators of the revenue assigned lands was fairly low. According to the supervisors of the Bengal Districts in the 1770s and early 1780s, the rate of assessment charged by the *Bazee Zemin* revenue assignees was around one-quarter to one-third of the rate which the British had begun to demand from the lands which were treated as *Khalsa*,[85] a category which was now just swallowing up practically all the other categories. A more or less similar phenomenon obtained in the various districts of the Madras Presidency—even as late as the 1820s.[86] Moreover, though it may seem unbelievable, the area which constituted Malabar had, till about 1750, never been subject to a land tax.[87] It had a variety of other mercantile and judicial taxes, but land in Malabar—according to British investigators themselves—never paid revenue of any kind till the peace was wholly shattered by the Europeans, Hyder Ali and Tipu Sultan. Even during Tipu's period, the actual receipts from Malabar were fairly small.

The major dispossession of the various categories of revenue assignees (starting from those who had assignment for the performance of military duties, and who formed the local militias, and going on to those who performed police duties, etc.) started as soon as the British took over *de facto* control of any area, (i.e. in Bengal and Bihar from 1757-58 onwards). The turn of the *Chakeran Zemin* and the *Bazee Zemin* came slightly later. By about 1770, the latter had also begun to be seriously affected. By about 1800, through various means, a very large proportion of these had been altogether dispossessed; and, most of the remaining had their assignments greatly reduced through various devices. Among the devices used was the application of the newly established enhanced rate of assessment even to the sources from which the assignees had received the revenue. This device, to begin with, implied a reduction of the quantity of the assigned source in accordance with the increased rate of assessment. The next step was to reduce—in most cases—the money value itself. The result was that the assignee—whether an individual or an institution—even when allowed a fraction of the previous assignment, was no longer able (because of such steep reduction) to perform the accompanying functions in the manner they had been performed only some decades previously. Those whose assignments were completely abrogated were of course reduced to penury and beggary, if not to a worse fate. Naturally, many of the old functions dependent on such assignments (like teaching, medicine, feeding of pilgrims, etc.), had to be given up because of want of fiscal support, as also due to state ridicule and prohibitions.

There are references (see the annexed reports from some of the Madras Presidency collectors) to certain revenue assignments here and there, and to daily cash or grain allowances received by some of those who were occupied in imparting Sanskritic learning, or Persian, and in some instances even education at the elementary level. A few other collectors also made reference to certain revenue assignments which used to exist in the area (but were said to have been appropriated by Tipu, and that, when the British took over these areas, they formally added such revenue to the total State revenue). The various area reports of the period 1792 to about 1806 make much mention of dispossession of revenue assignees by orders of Tipu in the area over which he had control. But, at the same time, it is also stated that through the connivance of the revenue officers, etc., such dispossession during Tipu's reign was, in most cases, not operative at all. What Tipu might have intended merely as a threat to opponents, became a *de facto* reality when these areas came under formal British administration.

But in most areas which the British had conquered (either on behalf of the Nabob of Arcot, or on behalf of the Nizam of Hyderabad, or administered in the name of the various Rajas of Tanjore), most such dispossession was pre-1800. The process started soon after 1750, when the British domination of South India began gathering momentum in the early 1780s and the revenues of the areas claimed by the British to be under the nominal rulership of the Nabob of Arcot were formally assigned over to the British. One major method used to ensure dispossession was to slash down what were termed the 'District charges', i.e., the amounts traditionally utilised within the districts, but which, for purposes of accounting, were shown in the records of the Nabob. The slashing down in certain districts like Trichnopoly was up to 93% of the 'District charges' allowed until then: a mere 19,143 Star Pagodas now allowed in place of the earlier 2,82,148 Star Pagodas.

The report of the collector of Bellary is best known and most mentioned in the published records on indigenous education.[88] It is long and fairly comprehensive, though the data he actually sent was much less detailed. In it, he actually—to the extent a collector could—came out with the statement that the degeneration of education 'is ascribable to the gradual but general impoverishment of the country'; that 'the means of the manufacturing classes have been greatly diminished by the introduction of our own European manufactures'; that 'the transfer of the capital of the country from the native government and their officers, who liberally expanded it in India, to Europeans, restricted by law from employing it even temporarily in India, and daily draining it from the land, has likewise tended to this effect'; that 'in many villages where formerly there were schools, there are now *none*'; and that 'learning, though it may proudly decline to sell its stores, had never flourished in any country except under the encouragement of the ruling power, and the countenance and support once given to science in this part of India has long been withheld.' In elaboration, he added that 'of the 533 institutions for education now existing in this district, I am ashamed to say not one now derives any support from the State'; but that 'there is no doubt, that in former times, especially under the Hindoo Governments very large grants, both in money and in land, were issued for the support of learning'; that the 'considerable *yeomiahs* or grants of money, now paid to brahmins in this district...may, I think, be traced to this source'. He concluded with the observation that:

> Though it did not consist with the dignity of learning to receive from her votaries hire, it has always in India been deemed the duty of government to evince to her the highest respect, and to grant to her those emoluments which she could not, consistently with her character, receive from other sources; the grants issued by former governments, on such occasions, contained therefore no unbecoming stipulations or conditions. They all purport to flow from the free bounty of the ruling power, merely to aid the maintenance of some holy or learned man, or to secure his prayers for the State. But they were almost universally granted to learned or religious persons, who maintained a school for one or more of the sciences, and taught therein gratuitously; and though not expressed in the deed itself, the duty of continuing such gratuitous instruction was certainly implied in all such grants.[89]

The Collector of Bellary, A.D. Campbell, was an experienced and perceptive officer, previously having held the post of Secretary of the Board of Revenue, and was perhaps one of Thomas Munro's favourites. It may be said to Munro's credit that in his review of 10 March 1826, he did admit in his oblique way that indigenous education 'has, no doubt, been better in earlier times.' The fact that it got disrupted, reduced and well-nigh destroyed from the time the British took over *de facto* control and centralised the revenue, was obviously not possible even for a Governor as powerful as Thomas Munro to state in formal government records.

Illustrations such as the above can be multiplied *ad infinitum*. It only requires searching the records pertaining to the early period of British rule in different areas of India. With much industry and in a fairly objective manner, Leitner tried to do this for the Panjab. For Gandhiji, an intuitive understanding of what could have happened was enough. He could, therefore, with confidence, reply to Hartog that, 'my prejudice or presentiment still makes me cling to the statement I made at Chatham House.'

IX

This brings us finally to an assessment of the content of the indigenous system of education. The long letter of the much-quoted A.D. Campbell, collector of Bellary, had been used a century earlier by London to establish that in India reading and writing were acquired 'solely with a view to the transaction of business', that 'nothing whatever is learnt except reading, and with the exception of writing and a little arithmetic, the education of the great majority goes no farther.'

The question of content is crucial. It is the evaluation of content which led to indigenous education being termed 'bad' and hence to its dismissal; and, in Gandhiji's phrase, to its uprooting. Yet it was not 'the mere reading and writing and a little arithmetic' which was of any consequence in such a decision. For, school education in contemporary England, except in the sphere of religious teaching, covered the same ground, and probably, much less thoroughly. As mentioned earlier, the average period of schooling in 1835 England was just about one year, and even in 1851, only two. Further, as stated by A.E. Dobbs, 'in some country schools, writing was excluded for fear of evil consequences.'

While the limitless British hunger for revenue—so forcefully described by Campbell—starved the Indian system of the very resources which it required to survive, its cultural and religious content and structure provoked deliberate attempts aimed at its total extermination. It was imperative to somehow uproot the Indian indigenous system for the relatively undisturbed maintenance and continuance of British rule. It is the same imperative which decided Macaulay, Bentinck, etc., to deliberately neglect large-scale school education—proposed by men like Adam—till a viable system of Anglicised higher education had first been established in the country.

In 1813, this bold intention was publicly and powerfully expressed by William Wilberforce when he depicted Indians as being 'deeply sunk, and by their religious superstitions fast bound, in the lowest depths of moral and social wretchedness.'[90] T.B. Macaulay expressed similar views, merely using different imagery. He commented that the totality of Indian knowledge and scholarship did not even equal the contents of 'a single shelf of a good European library', and that all the historical information contained in books written in Sanskrit was 'less valuable than what may be found in the most paltry abridgement used at preparatory schools in England.'[91] To Macaulay, all Indian knowledge, if not despicable, was at least absurd: absurd history, absurd metaphysics, absurd physics, absurd theology.

A little later, Karl Marx seems to have had similar impressions of India—this, despite his great study of British state papers and other extensive material relating to India. Writing in the *New York Daily Tribune* on 25 June 1853, he shared the view of the perennial nature of Indian misery, and approvingly quoted an ancient Indian text which according to him placed 'the commencement of Indian misery in an epoch even more remote than the Christian creation of the world.' According to him, Indian life had always been undignified, stagnatory, vegetative, and passive, given to a brutalising worship of nature instead of man being the 'sovereign of nature'—as contemplated in contemporary European thought. And, thus Karl Marx concluded: 'Whatever may have been the crimes of England' in India, 'she was the unconscious tool of history' in bringing about—what Marx so anxiously looked forward to—India's westernisation.

The complete denunciation and rejection of Indian culture and civilisation was, however, left to the powerful pen of James Mill. This he did in his monumental three volume *History of British India*, first published in 1817. Thenceforth, Mill's *History* became an essential reading and reference book for those entrusted with administering the British Indian Empire. From the time of its publication till recently, the *History* in fact provided the framework for the writing of most histories of India. For this reason, the impact of his judgments on India and its people should never be underestimated.

According to Mill, 'the same insincerity, mendacity, and perfidy; the same indifference to the feelings of others; the same prostitution and venality' were the conspicuous characteristics of both the Hindoos and the Muslims. The Muslims, however, were perfuse, when possessed of wealth, and devoted to pleasure; the Hindoos almost always penurious and ascetic; and 'in truth, the Hindoo like the eunuch, excels in the qualities of a slave.' Furthermore, similar to the Chinese, the Hindoos were 'dissembling, treacherous, mendacious, to an excess which surpasses even the usual measure of uncultivated society.' Both the Chinese and the Hindoos were 'disposed to excessive exaggeration with regard to everything relating to themselves.' Both were 'cowardly and unfeeling.' Both were 'in the highest degree conceited of themselves, and full of affected contempt for others.' And, above all, both were 'in physical sense, disgustingly unclean in their persons and houses.'

Compared to the people of India, according to Mill, the people of Europe even during the feudal ages, (and notwithstanding the vices of the Roman Church and the defects of the schoolmen), were superior in philosophy. Further, the Europeans 'were greatly superior, notwithstanding the defects of the feudal system, in the institutions of Government and in laws.' Even their poetry was 'beyond all comparison preferable to the poetry of the Hindoos.' Mill felt that it was hardly necessary to assert that in the art of war 'the Hindoos have always been greatly inferior to the warlike nations of Europe.' The agriculture of the Europeans 'surpassed exceedingly that of the Hindoos', and in India the roads were little better than paths, and the rivers without bridges; there was not one original treatise on medicine, considered as a science, and surgery was unknown among the Hindoos. Further still, 'compared with the slavish and dastardly spirit of the Hindoos', the Europeans were to be placed in an elevated rank with regard to manners and character, and their manliness and courage.

Where the Hindoos surpassed the Europeans was in delicate manufactures, 'particularly in spinning, weaving, and dyeing'; in the fabrication of trinkets; and probably in the art of polishing and setting the precious stones; and more so in effeminate gentleness, and the winning arts of address. However, in the arts of painting, sculpture, and architecture the Hindoos in no way excelled Europeans. Further, 'the Hindoo loom, with all its appurtenances, is coarse and ill-fashioned, to a degree hardly less surprising than the fineness of the commodity which it is the instrument of producing.' The very dexterity in the use of their tools and implements became a point against the Indians. For as James Mill proclaimed: 'A dexterity in the use of its own imperfect tools is a common attribute of rude society.'

These reflections and judgments led to the obvious conclusion, and Mill wrote:

> Our ancestors, however, though rough, were sincere; but under the glossing exterior of the Hindoo lies a general disposition to deceit and perfidy. In fine, it cannot be doubted that, upon the whole, the gothic nations, as soon as they became a settled people, exhibit the marks of a superior character and civilisation to those of the Hindoos.[92]

As to James Mill, so also to Wilberforce, Macaulay, and Karl Marx and the thought and approaches they represented (for it is more as spokesmen of such thinking and approaches that they are important in the context of India rather than as outstanding individuals), the manners, customs and civilisation of India were intrinsically barbarous. And to each of them, India could become civilised only by discarding its Indianness, and by adopting 'utility as the object of every pursuit'[93] according to Mill; by embracing his peculiar brand of Christianity for Wilberforce; by becoming anglicised, according to Macaulay; and for Marx by becoming western. Prior to them, for Henry Dundas, the man who governed India from London for twenty long years, Indians not only had to become subservient to British authority but also had to feel 'indebted to our beneficence and wisdom for advantages they are to receive'; and, in like manner, 'feel solely indebted to our protection for the countenance and enjoyment of them'[94] before they could even qualify for being considered as civilised.

Given such complete agreement on the nature of Indian culture and institutions, it was inevitable that because of its crucial social and cultural role, Indian education fared as it did. To speed up its demise, it not only had to be ridiculed and despised, but steps also had to be taken so that it was starved out of its resource base. True, as far as the known record can tell, no direct dismantling or shutting up of each and every institution was resorted to, or any other more drastic physical measures taken to achieve this demise. Such steps were unnecessary; the reason being that the fiscal steps together with ridicule, performed the task far more effectively.

An official indication of what was to come was conveyed by London to the Madras Presidency when it acknowledged receipt of the information that a survey of indigenous education had been initiated there, much before the papers of the survey were actually sent to London. The London authorities expressed their appreciation of this initiative. They also approved of the collectors having been cautioned against 'exciting any fears in the people that their freedom of choice in matters of education would be interfered with.' However, this approval was followed by the observation: 'But it would be equally wrong to do anything to fortify them (i.e. the people of the Madras Presidency) in the absurd opinion that their own rude institutions of education are so perfect as not to admit of improvement.' The very expression of such a view in the most diplomatically and cautiously worded of official instructions was a clear signal. Operatively, it implied not only greater ridicule and denunciation of the Indian system; but further, that any residual fiscal and state support still available to the educational institutions was no longer to be tolerated. Not surprisingly, the indigenous system was doomed to stagnate and die.

The neglect and deliberate uprooting of Indian education, the measures which were employed to this end, and its replacement by an alien and rootless system—whose products were so graphically described later by Ananda Coomaraswamy—had several consequences for India. To begin with, it led to an obliteration of literacy and knowledge of such dimensions amongst the Indian people that recent attempts at universal literacy and education have so far been unable to make an appreciable dent in it. Next, it destroyed the Indian social balance in which, traditionally, persons from all sections of society appear to have been able to receive fairly competent schooling. The *pathshalas* and *madrassahs* had enabled them to participate openly and appropriately and with dignity not only in the social and cultural life of their locality but, if they wished, ensured participation at the more extended levels. It is this destruction along with similar damage in the economic sphere which led to great deterioration in the status and socio-economic conditions and personal dignity of those who are now known as the scheduled castes; and to only a slightly lesser extent to that of the vast peasant majority encompassed by the term 'backward castes'. The recent movements embracing these sections, to a great extent, seem to be aimed at restoring this basic Indian social balance.

And most importantly, till today it has kept most educated Indians ignorant of the society they live in, the culture which sustains this society, and their fellow beings; and more tragically, yet, for over a century it has induced a lack of confidence, and loss of bearing amongst the people of India in general.

What India possessed in the sphere of education two centuries ago and the factors which led to its decay and replacement are indeed a part of history. Even if the former could be brought back to life, in the context of today, or of the immediate future, many aspects of it would no longer be apposite. Yet what exists today has little relevance either. An understanding of what existed and of the processes which created the irrelevance India is burdened with today, in time, could help generate what best suits India's requirements and the ethos of her people.

Notes

1. See Annexures, especially A(i)-(xxx), C, and D(i), (iii)-(iv)h.

2. A. E. Dobbs: *Education and Social Movements 1700-1850*, London, 1919, p.80, quoting *Oxford Commission*, 1852, Report, p.19.

3. *Ibid*, p.83.

4. *Ibid*, p.104, f.n.l. quoting 7 Henry IV, c.17.

5. *Ibid*, p.105, quoting 34 & 35 Henry VIII, c.l. This statute dating to 1542-43 A.D., consisting of just one Article after a preamble read, '...The Bible shall not be read in *English* in any church. No women or artificers, prentices, journeymen, servingmen of the degree of yeomen or under, husbandmen, nor labourers, shall read the New Testament in *English*. Nothing shall be taught or maintained contrary to the King's instructions. And if any spiritual person preach, teach, or maintain any thing contrary to the King's instructions or determinations, made or to be made, and shall be thereof convict, he shall for his first offence recant, for his second abjure and bear a fagot, and for his third shall be adjudged an heretic, and be burned and lose all his goods and chattels.' The statute was entitled 'An Act for the Advancement of True Knowledge'. This restriction, however, may have completely been lifted by the time the 'authorised version' of the Bible (King James's translation) was published in England in 1611.

6. *Ibid,* p.104, f.n.3, quoting Strype, Cranmer, i.127

7. *Ibid,* p.33, f.n.l.

8. *Ibid,* p.139

9. *Ibid,* p.139

10. *Ibid,* p.140

11. *Ibid,* p.158

12. J.W. Adamson: *A Short History of Education*, Cambridge, 1919, p.243.

13. *Ibid,* p.243

14. See Annexure C: Alexander Walker, Note on Indian Education; also *Ibid,* p.246

15. House of Commons Papers, 1852-53, volume 79, p.718, for the number of schools and pupils in them in 1818 and 1851.

16. Adamson: *op.cit.*, 232

17. Dobbs, *op.cit.*, pp. 157-8 also f.n.1, p.158.

18. Adamson : *op.cit.*, p.266

19. *Ibid,* p.226

20. *Ibid,* p.226

21. Writing to the second Earl Spencer on 21 August 1787 William Jones described a serpentine river 'which meets the Ganges opposite the celebrated University of *Brahmans* at *Navadwipa*, or *Nuddea*, as Rennel writes it. This is the third University of which I have been a member.' The *Letters of Sir William Jones*, by G. Cannon. 2 volumes, 1970, p.754.

22. The fourth British University, that of London was established in 1828.

23. The above information is abstracted from *The Historical Register of the University of Oxford 1220-1888*, Oxford, 1888, mostly from pp.45-65.

24. The foregoing four paragraphs are based on information supplied by the University of Oxford in November 1980 on request from the author.

25. For instance according to her doctoral thesis presented in April 1980 at the Sorbonne, Paris, Gita Dharampal: *Etude sur le role des missionaries europeens dans la formation premiers des idees sur l'Inde,* an early eighteenth century manuscript still has several copies extant. The manuscript is titled *Traite de la Religion des Malabars*, and its first copy was completed in 1709 by Tessier de Queraly, procurator of the Paris Foreign Mission in Pondicherry from 1699 to 1720, nominated Apostolic Vicar of Siam in 1727. Copies of this Ms. are to be found in the following archives: Paris (Bibliotheque Nationale 3 copies, Bibliotheque de L'Arsenal 1 copy, Bibliotheque Ste. Genevieve 1 copy, Archives

Nationales 1 copy); Chartres (Bibliotheque Municipale 1 copy, formerly belonging to the Governor Benoit Dumas), London (India Office Libr. 2 copies in Col Mackenzie's and John Leyden's collections respectively); Rome 1 copy (Biblioteca Casanatesa, containing Vatican collection). Published as *La Religion Des Malabars*, Immense, 1982.

26. See the author's *Indian Science and Technology in the Eighteenth Century: Some Contemporary European Accounts*. Other India Press, 2000, for Prof John Playfair's long article on Indian astronomy, pp.48-93.

27. Edinburgh University: Dc.177: letters from Adam Ferguson to John Macpherson, letter dated 9.4.1775.

28. Edinburgh: Scottish Record Office: Melville Papers: GD 51/3/617/1-2, Prof A. Maconochie to Henry Dundas.

29. Edinburgh: National Library of Scotland: Ms.546, Alex Abercomby forwarding a further memorandum from Prof Maconochie to Henry Dundas, March 1788. The memorandum was communicated to Lord Cornwallis by Henry Dundas on 7.4.1788.

30. HANSARD: June 22, 1813; columns 832, 833.

31. HANSARD: June 22 and July 1, 1813: Debate on Clause No.13 of the India Charter Bill, titled in *HANSARD* as 'Propagation of Christianity in India'.

32. *Report on the state of Education in Bengal*, 1835. p.6.

33. House of Commons Papers, 1812-13, volume 7, evidence of Thomas Munro, p.127.

34. House of Commons Papers, 1831-32, volume 9, p.468. Prendergast's statement may be treated with some caution as it was made in the context of his stand that any expenditure on the opening of any schools by the British was undesirable. As a general impression of a senior British official, however, corroborated by similar observations relating to other parts of India, its validity appears beyond doubt.

35. See, for instance, the discussion on relative Indian and British agricultural wages in the *Edinburgh Review*, volume 4, July 1804.

36. Philip Hartog, *Ibid*, p.74.

37. This, however, may have resulted more from a relatively easier Indian climate than from any physical and institutional arrangements.

38. That is those belonging to the Brahman, Kshetriya and Vaisya *varnas*, but excluding the Soodras and castes outside the four *varna* division.

39. It may fairly be assumed that the term 'other castes' used in the Madras Presidency survey in the main included those who today are categorised amongst the scheduled castes, and many of whom were better known as 'Panchamas' some 70-80 years ago.

40. Annexure A (viii)

41. Given at Annexures B and C. Further, in the Public Despatch to Bengal from London dated 3 June 1814, it was observed: 'The mode of instruction that from time immemorial has been practised under these masters has received the highest tributes of praise by its adoption in this country, under the direction of the Reverend Dr. Bell, formerly chaplain at Madras; and it has now become the mode by which education is conducted in our national establishments, from a conviction of the facility it affords in the acquisition of language by simplifying the process of instruction.'

42. Annexure A (xxii)

43. Annexure A (xxiii)

44. These surveys began to be made from 1812 onwards, and their main purpose was to find out what number of such medical men were in receipt of assignments of revenue. Some details of the castes of these practitioners may be found in Madras Board of Revenue Proceedings of 17 September 1821, and of 9 March 1837, and other proceedings referred to therein.

45. Annexure A (xx) a.

46. Annexure A (xi).

47. Annexure A (x)
48. Annexure A (xxvii).

49. This observation of the Collector of Guntoor is corroborated by W. Adam wherein he mentions that at Nadia many scholars came from 'remote parts of India, especially from the South' (W. Adam, p.78, 1941 edition)

50. Annexure A (xix)

51. Annexure A (xxiii)

52. It may be mentioned that Persian schools (in all about 145 in the Presidency) were predominantly attended by Muslims, and only a few Hindoos seem to have attended them (North Arcot: Hindoos 2, Muslims 396). However, quite a number of Muslim girls were reported to be attending these schools.
53. Annexure A (xx)
54. Annexure A (xxviii)

55. As in many other instances, it was unthinkable for the British that India could have had a proportionately larger number receiving education than those in England itself. Such views and judgements in fact were applied to every sphere and even the rights of the Indian peasantry were tailored accordingly. On the rights of the cultivator of land in India, the Fifth Report of the House of Commons stated: 'It was accordingly decided, "that the occupants of land in India could establish no more right, in respect to the soil, than tenantry upon an estate in England can establish a right to the land, by hereditary residence:" and the meerassee of a village was therefore defined to be, a preference of cultivation derived from hereditary residence, but subject to the right of government as the superior lord of the soil, in what way it chooses, for the cultivation of its own lands.' (House of Commons Papers, 1812, Volume VII, p.105)

56. Annexures A (xx) and (xiv)

57. While the caste-wise break up of the Madras Presidency school and college scholars has hitherto not been published, the separate figures for Hindoos and Muslims and those respectively divided into males and females were published as early as 1832 in the House of Commons Papers. Since then, it may be presumed that this data regarding the number of girls and boys in Malabar schools has been seen by a large number of scholars studying the question of education in India in the early nineteenth century. Curiously, however, there does not seem to be even a passing reference to this Malabar data in any of the published works. It seems to have been overlooked by Sir Philip Hartog also.

58. Adam's Reports were first published in 1835, 1836 and 1838. The three, together with some omissions, and a 60-page rather depressing and patronising introduction were published by Rev. J. Long from Calcutta in 1868. Still another edition of the whole (reintroducing the omissions made by Long and including Long's own introduction) with a further new 42-page introduction by Anathnath Basu was published by the University of Calcutta, in 1941. It is this last edition which is used in

the present work. The reports, while never sufficiently analysed, have often been quoted in most works on the history of education in India.

59. W. Adam: *Ibid*, pp.6-7. Incidentally the observation that every village had a school was nothing peculiar to Adam. As mentioned earlier, many others before him had made similar observations, including Thomas Munro in his evidence to a House of Commons committee. Munro had then observed that 'if civilization is to become an article of trade' between England and India, the former 'will gain by the import cargo.' As symptomatic of this high state of Indian civilisation, he also referred to 'schools established in every village for teaching, reading, writing and arithmetic.' When Thomas Munro made this statement he already had had 30 years of intensive Indian experience. (House of Commons Papers: 1812-13, Vol .7, p.131).

60. See *Indian Science and Technology in the Eighteenth Century: some contemporary European accounts*, pp.143-63, for an account of this old method.

61. This, as may be noticed, was quite at variance with the Madras Presidency districts where Persian was not only studied little, but the students of it were mainly Muslims. Interestingly, Adam mentions (p.149) that amongst the Muslims 'when a child...is four years, four months, and four days old', he, or she is on that day usually admitted to school.

62. *History of Indigenous Education in the Panjab since Annexation and in 1882* (Published 1883, Reprinted, Patiala, 1973).

63. The idea of their being divinely ordained was really a much older English assumption. In *A Brief Description of New York Formerly called New-Netherlands*, published in 1670, referring to the indigenous people in that part of North America, Daniel Denton observes: 'It is to be admired, how strangely they have decreast by the Hand of God, since the English first settling of those parts; for since my time, where there were six towns, they are reduced to two small villages, and it hath been generally observed, that where the English come to settle, a Divine Hand makes way for them, by removing or cutting off the Indians either by wars one with the other, or by some raging mortal Disease.' (Reprint 1902 p.45)

64. See letter of Dr H. Scott to Sir Joseph Banks, President, Royal Society, London, dated 7.1.1790 in *Indian Science and Technology in the Eighteenth Century*, p.265.

65. First published in *New York Daily Tribune*, August 8, 1853; also recently quoted by Iu.I. Semenov 'Socio-economic Formations and World History,' in *Soviet and Western Anthropology*, edited by Ernest Gellner, 1980.

66. *Current Anthropology*, Volume 7, No. 4, October 1966, pp.395-449, Estimating Aboriginal American Population, by Henry F. Dobyns.

67. Writing as early as 1804, William Bentinck, the young Governor of the Madras Presidency, wrote to the President of the Board of Control, Lord Castlereagh, that 'we have rode the country too hard, and the consequence is that it is in the most lamentable poverty.' (Nottingham University: Bentinck Papers: Pw Jb 722). In 1857-58 a military officer wrote to Governor General Canning, 'it may be truly said that the revenue of India has hitherto been levied at the point of the bayonet' and considered this to be the major cause of the Mutiny. (Leeds: Canning Papers: Military Secretary's Papers: Misc. No.289).

68. *International Affairs*, London, November 1931, pp.721-739; also *Collected Works of Mahatma Gandhi*, vol.48, pp.193-206.

69. See origins of the *School of Oriental Studies, London Institution*, by P.J. Hartog, C.I.E., M.A., 1917.

70. A graphic image of the more privileged products of this British initiated education was given by Ananda K Coomaraswamy as early as 1908. Coomaraswamy then wrote: 'Speak to the ordinary graduate of an Indian University, or a student from Ceylon, of the ideals of the *Mahabharata*—he will hasten to display his knowledge of Shakespeare; talk to him of religious philosophy—you find that he is an atheist of the crude type common in Europe a generation ago, and that not only has he no religion, but is as lacking in philosophy as the average Englishman; talk to him of Indian music—he will produce a gramophone or a harmonium and inflict upon you one or both; talk to him of Indian dress or jewellery—he will tell you that they are uncivilised and barbaric; talk to him of Indian art—it is news to him that such a thing exists; ask him to translate for you a letter written in his own mother-tongue—he does not know it. He is indeed a stranger in his own land.' (*Modern Review*, Calcutta, vol 4, Oct. 1908 p.338).

71. January 1932, pp.151-82.

72. Also in *House of Commons Papers*: 1831-32, vol. 9, p.468.

73. Clarendon Press, 1917, p.394.

74. In *Journal of the Royal Asiatic Society*, London, 1917, pp.815-25.

75. Philip Hartog's lectures were announced in the London *Times*, (March 1,4,6,1935) and two of them reported in it on March 2 and 5. On 2 March the *Times* reported that Sir Philip Hartog, 'submitted that under successive Governor Generals, from Warren Hastings to Lord Chelmsford, an educational policy was evolved as part of a general policy to govern India in the interest of India, and to develop her intellectual resources to the utmost for her own benefit.' It is interesting, however, to note that the *Times,* while it gave fairly constant though brief notices to Gandhiji's 1931 visit to England, and some of the public meetings he addressed and the celebration of his birthday, the meeting at Chatham House did not reach its pages. It was not only not reported the next day, October 21, 1931, but was also not announced along with various other notices of various other meetings, etc., on the morning of October 20. Possibly it was a convention not to report any meetings at Chatham House in newspapers.

76. The Book of Lectures was reviewed in the *Times Literary Supplement* under the caption 'Mr Gandhi Refuted'. Complimenting Hartog, the review stated: 'There are many deserved criticisms of past British administrators in this particular field, but other charges dissolve into thin air when exposed to the searching analysis Sir Philip Hartog has applied to a statement of Mr Gandhi...Sir Philip took up the challenge at once...he shows how facts were distorted to fit an educational theory.'

77. The text of Hartog-Gandhi correspondence is given at Annexures F (i)-(xxv).

78. The available material on the survey of indigenous education in the Presidency of Bombay has been brought out in a valuable book *Survey of Indigenous Education in the Province of Bombay 1820-30* by R.V. Parulekar in 1951. This survey, however, appears to have covered only certain parts of the Bombay Presidency.

79. Judging from their products, in a certain sense, this may apply even more to the writings on India by most non-Indians. Their writings on various aspects of Indian society and polity will obviously be influenced, if not wholly conditioned, by their respective cultural and educational ethos. Even when some of them—Alexander Walker in the early 19th century and Prof. Burton Stein today—appear to understand India

better, it is not really for them to map out how Indians should end up perceiving themselves or their own society. Such a task can legitimately only be undertaken by India itself.

80. Public Despatch to Bengal, 3 June 1814: 'We refer with particular satisfaction upon this occasion to that distinguished feature of internal polity which prevails in some parts of India, and by which the instruction of the people is provided for by a certain charge upon the produce of the soil, and other endowments in favour of the village teachers, who are thereby rendered public servants of the community.'

81. The revenue records of all areas, especially of the years 1770-90 for the Bengal Presidency, and of 1801-20 for the Madras Presidency provide very extensive information regarding such assignments. The information regarding assignments for the purpose of carrying Ganga water to religious shrines is taken from *Mafee Register* for 1847 for the district of Hamirpur and Kalpi in the Uttar Pradesh State Archives at Allahabad.

82. I.O.R. Factory Records: G/27/1, Supervisor Houghly to Murshedabad Council, 10.10.1770, p.88.

83. In a note dated circa 1830.

84. The total number of *maths* and temples in Tanjore about this time was around 4,000.

85. I.O.R. Factory Records: G/6/4. Proceedings of Burdwan Council on Beerbhoom, 24.5.1775.

86. The problem of peasants deserting *sirkar* lands (i.e. lands paying revenue to government) because of the exhorbitant rate of government assessment even in the 1820s was of such frequency that it was deliberated upon by Thomas Munro as Governor of Madras in November 1822. At that time Munro observed that 'it would be most satisfactory if the sirkar ryots were induced to give a voluntary preference to the sirkar land' and felt that the rest of the village community paying revenue to government should not 'allow a ryot to throw up sirkar land liable to adjustment merely that he may occupy Enam land which is liable to none.' But if such 'inducement' did not work Munro was of the view, that 'if necessary, measures for the protection of the rights of government may be directed more immediately to the Enamdars, either by taking their Enams or by resuming them.' (Tamil Nadu state Archives: Board of Revenue Proceedings: volume 930, Proceedings 7.11.1822, pp.10292-96).

87. For fairly detailed information on Malabar, see the voluminous Report of Commissioner Graeme, 16.7.1822 in TNSA: Revenue Consultations, especially volume 277A.

88. Annexure A (xxi), Philip Hartog, who made much play of this reply, as mentioned earlier, used it to throw doubt on the educational data from the other districts. It is possible that because of his contrary concerns, he was not able to comprehend this report fully.

89. Bellary was part of the Ceded Districts and was administered from 1800-7 by Thomas Munro. As mentioned earlier, it was here that Munro seemed outraged by the fact that 35% of the total cultivated land was still being assigned for various local purposes, and expressed his determination to reduce it to as low as 5% of the total revenue of the Ceded Districts. Munro at that time also advocated the imposition of an income-tax of about 15% on all those (revenue assignees, as well as merchants, artisans, labourers and the rest) who did not pay land revenue. The Madras Government accepted his recommendation and this tax, under various names, (*Veesabuddy*, *Mohtarpha*, etc.) was imposed

not only in the Ceded Districts but also in many other districts of the Madras Presidency.

It is this background of exhorbitant taxation and the cutting down of all expenses, even on the repair of irrigation sources that largely led to the conversion of Bellary and Cuddapah into the latter day arid and impoverished areas. Quite naturally, then, the educational returns from Bellary were low.

90. *Hansard*: June 22, 1813.

91. Minute on Indian Education: March 1835.

92. J.S. Mill, *History of British India,* 1817, vol. I, pp.344, 351-2, 466-7, 472, 646.

93. *Ibid,* p.428.

94. Revenue Despatch to Madras: 11.2.1801.

DOCUMENTS

Annexure A

I

MINUTE OF GOVERNOR SIR THOMAS MUNRO ORDERING THE COLLECTION OF DETAILED INFORMATION ON INDIGENOUS EDUCATION:

25.6.1822*

(TNSA: Revenue Consultations: Vol.920: dated 2.7.1822)

1. Much has been written both in England and in this country about the ignorance of the people of India and the means of disseminating knowledge among them. But the opinions upon this subject are the mere conjectures of individuals unsupported by any authentic documents and differing so widely from each other as to be entitled to very little attention. Our power in this country and the nature of its own municipal institutions have certainly rendered it practicable to collect material from which a judgment might be formed of the state of the mental cultivation of the people. We have made geographical and agricultural surveys of our provinces. We have investigated their resources and endeavoured to ascertain their population, but little or nothing has been done to learn the state of education. We have no record to show the actual state of education throughout the country. Partial inquiries have been made by individuals, but those have taken place at distant periods—and on a small scale and no inference can be drawn from them with regard to the country in general. There may be some difficulty in obtaining such a record as we want. Some Districts will not—but others probably will furnish it—and if we get it only from two or three it will answer in some degree for all the rest. It cannot be expected to be very accurate, but it will at least enable us to form an estimate of the state of instructions among the people. The only record which can furnish the information required is a list of the schools in which reading and writing are taught in

each district showing the number of scholars in each and the caste to which they belong. The Collectors should be directed to prepare this document according to the form which accompanies this paper. They should be desired to state the names of the book generally read at the schools. The time which scholars usually continue, at such schools. The monthly or yearly charge to the scholars and whether any of the schools are endowed by the public and if so the nature and amount of the fund. When there are colleges or other institutions for teaching Theology, Law, Astronomy, etc. an account should be given of them. These sciences are usually taught privately without fee or reward by individuals to a few scholars or disciples, but there are also some instances in which the native governments have granted allowances in money and land for the maintenance of the teachers.

2. In some districts, reading and writing are confined almost entirely to Bramins and the mercantile class. In some they extend to other classes and are pretty general among the Patails of villages and principal Royets. To the women of Bramins and of Hindoos in general they are unknown because the knowledge of them is prohibited and regarded as unbecoming of the modesty of the sex and fit only for public dancers. But among the women of the Rujbundah and some other tribes of Hindoos who seem to have no prejudice of this kind, they are generally taught. The prohibition against women learning to read is probably from various causes, much less attended to in some districts than in others and as it is possible that in every district a few females may be found in the reading schools, a column has been entered for them in the Form proposed to be sent to the Collector. The mixed and impure castes seldom learn to read, but as a few of them do, columns are left for them in the Form.

3. It is not my intention to recommend any interface whatever in the native schools. Everything of this kind ought to be carefully avoided, and the people should be left to manage their schools in their own way. All that we ought to do is to facilitate the operations of these schools by restoring any funds that may have been diverted from them and perhaps granting additional ones, where it may appear advisable. But on this point we shall be better able to judge when we receive the information now proposed to be called for.

25th June 1822. (Signed)
Thomas Munro

II

Ordered in consequence that the
following letter be despatched:
No.459
Revenue Department

To,

The President and Members of the Board of Revenue

Gentlemen,

I am directed to state that it is considered by the Honourable the Governor-in-Council to be an object of interest and of importance to obtain as accurate information as may be procurable with regard to the actual state of education throughout the country, and to desire that the several Collectors may be required to furnish such information according to the accompanying Form. Besides reporting the number of schools in which reading and writing are taught, the number of scholars in each and the castes to which they belong, the Collectors should state the time which scholars usually continue at school, the monthly or yearly charge to the scholars, whether any of the schools are endowed by the public and in such cases the nature and amount of the fund. When there are colleges or other institutions for teaching Theology, Law, Astronomy, etc., an account of them should be given. These sciences are usually taught privately to a few scholars or disciples by individuals without any fee or reward, but there are also some instances in which the native government has granted allowances in money and land for the maintenance of the teachers.

Although generally education is confined to particular castes and is not extended to females, yet as there are exceptions, which in certain districts may be numerous, the accompanying Form is adopted to include them.

It is to be clearly understood by the Collectors that no interference whatever with the native school is intended. Everything of that kind should be carefully avoided and the people should be left to manage their schools in their own way. All that ought to be done is to facilitate the operation of the schools, by restoring any funds that may have been diverted from them and perhaps granting additional funds where it may appear advisable.

Fort St. George, *D. Hill,*
2nd July 1822. *Secretary to Government*

III

CIRCULAR—FORT ST. GEORGE—25TH JULY 1822

(TNSA: BRP—Vol.920, Pro. 25.7.1822, pp.6971-72 No.7)

1. I am directed by the Board of Revenue to transmit to you the accompanying copy of a letter with its enclosure from the Secretary to Government in the Revenue Department, and to desire that you will submit the required information together with a statement in the prescribed Form at your earliest convenience.

2. In calling for the information from the different parts of your Collectorate, you will cause your public servants clearly to understand, and to make known to the people that no interference with the schools is intended, though every assistance will be given to facilitate their operations and to restore any funds which may appear to have been diverted from their original purposes.

Fort St. George,
25th July 1822.

R. Clarke,
Secretary

(*Statement on following page*)

IV

PRINCIPAL COLLECTOR, CANARA TO BOARD OF REVENUE:

27.8.1822

(TNSA: BRP: Vol.924 Pro.5.9.1822, pp.8425-29 Nos.35-6)

1. I have the honor to acknowledge the receipt of your letter dated 25th ultimo, together with its enclosure being copy of letter from the Secretary to Government Revenue Department dated 2nd July directing me to forward a statement filled up as per Form transmitted, and to report upon the state of education in this zillah.

As the preparation of the necessary information to fill up the statement in question, would take up a considerable time and as any just criterion of the actual extent of such schools as exist in this zillah cannot be formed upon it, I have considered it expedient to submit this address, explanatory of the foregoing causes, which will I think show the preparation of the document for this Province unnecessary.

2. There are no colleges in Canara for the cultivation of the abstruse Sciences. Neither are there any fixed schools and masters to teach in them.

There is no instance known of any institutions of the above description having ever received support in any shape from the former governments.

3. The education of the few Bramin children of the higher classes in towns or villages, is conducted in the house of the principal man. He selects a teacher, who receives for each child a small sum, a present of cloth at particular ceremonies, and the same for a few others, children of the friends of the principal man, who also meet at his own house for the same purpose. The Moolla* in the same manner teaches a few Mussulman children on the same principle. It is entirely a private education, and the master is as often changed as the scholars. There is nothing belonging to it which can assimilate it with a shadow of public education, or indeed of regularity in learning.

The children are taught to read and write and accounts, and unless belonging to the highest classes, the attainment of

Persian and Hindwy and Canarese at the same time is seldom or ever pursued. Indeed, amongst those classes, it is so entirely a private tuition, that any estimate of the numbers of their children learning such languages could not be but erroneous.

4. Education is undoubtedly at its lowest ebb in Canara. To the Bramins of the country the Conkanny and Shinnawee and to the 2nd class of the former, the little education given, is confined. Amongst the farmers, generally speaking, and probably amongst one half of its population, the most common forms of education are unknown and in disuse, or more correctly speaking were never in use.

5. As applicable to the subject I beg leave to introduce an extract from a letter to the assistant surgeon of the zillah, written to him in consequence of a wish on the part of the Superintendent General of Vaccination to obtain information from me, on the practicability of inducing the upper classes of natives in Canara, to undertake the situations of practitioners, who from their supposed superior attainments would be enabled to facilitate the progress of vaccination.

Extract of Paras 6th, 7th and 8th

> 6. I have stated that I consider there is no objection to the Christian practitioner, but with regard to employment of men of the other various castes in this district, causes exist which I am led to believe would render the attempt futile. The mass of people are cultivators, there are no manufactures to speak of in Canara, it is a country of cottages dispersed in valleys and jungles, each man living upon his estate and hence there are few towns, even these are thinly populated. Hence I am led to conjecture from a lesser congregation of people the Arts and Sciences have never, at least in later times, become of that consequence in Canara to cause them to be taught and cherished. Probably there is no District in the Peninsula so devoid of artists or scientific men.
>
> 7. The soil of Canara is the natives undoubted right, gained by the first of all claims, the original clearing of it for cultivation. Thus, to this day his detestation of quitting his house and the fields by which it is surrounded. For those wants to which he is thus naturally exposed for cloth and for the various necessities of life which his land does not yield him, he is indebted to the few bazar men in the very

> few towns in each talook; these men chiefly Concanese are again indebted to their more opulent brethren established on the coast for supplies which are bartered for the products of the soil. These again are confined to three or four principal articles so that they do not afford room for much individual foreign enterprise, and consequently the provision of them remains with the people, who, have ever retained it, and thus strangers are in a great degree excluded from the country.
>
> 8. From these causes I certainly consider the general want of Men of Science originates, and also that men, where their occupation is so entirely taken up with one pursuit would not be induced to quit it on any account, much less for the occupation of a travelling vaccinator.

6. Subsequently to my arrival in Canara, I had endeavored to persuade some of the original farmers, the Bunts, to send their nephews (for they are the heirs, not the sons) to Mangalore for education—without success. A Christian school has been established in which Latin and Portuguese alone are taught.

7. Should the Board after this explanation still consider the preparation of the Form transmitted with their letter, desirable, and according to the views of the government, I shall endeavor to obtain the particulars. It will be, I beg to repeat, a very fallacious statement. Amongst the numerous servants of this extensive Collectorate there is but one, who writes Persian; the literary knowledge of all others is confined to Hindwy and Canarese. Even Sanscrit is very partially known, and the Ballabund is confined to a very few of the class of Bramins who read the Shastras. Amongst this latter class I have found many, who could not read some of the ancient inscriptions, which they assert are in a different character from the Hala Canarese, and Ballabund they were taught.

Mangalore,
Principal Collector's Cutcherry,
27th August, 1822.
(Order thereon)—35-36
Ordered to lie on the table:

T. Harris,
Principal Collector.

V

COLLECTOR OF TINNEVELLY TO BOARD OF REVENUE: 18.10.1822

(TNSA: BRP: Vol.928 Pro.28.10.1822 pp.9936-7 No.46-7)

I have the honor of forwarding the Statement of Schools in this District required by your Deputy's letter of the 25th July last.

The preparation of the account has been delayed by enquiry into the castes of the female scholars, who in almost all instances are found to be dancing girls.

Tinnevelly District,
Sharenmadavy,
18th October 1822.

J.B. Hudleston
Collector.

(Statement on following page)

VI

ASSISTANT COLLECTOR, SERINGAPATAM TO BOARD OF REVENUE:

29.10.1822

(TNSA: BRP: Vol.929 Pro.4.11.1822 pp.10260-2 Nos.33&4)

1. I have the honor to transmit in conformity to the instructions conveyed in your letter of the 25th July last, a statement exhibiting the number of seminaries within this zillah.

2. The extent of information acquired under the present prevailing system of education is extremely limited—nothing more is professed to be taught in these day-schools than reading, writing, and arithmetic, just competent for the discharge of the common daily transactions of society.

3. There are no traces on record, as far as I can ascertain, of endowments in land towards the support of colleges and schools having at a former period been granted either by the then existing government or any patriotic private individuals. The superintendents of the different seminaries were left for remuneration, entirely to the parents of the respective students frequenting them, and which system obtains to the present day.

4. It appears that for each pupil the preceptor receives 5 annas monthly which makes the total annual expenditure for the purposes of education within the Island of Seringapatam amount to rupees 2,351 and annas 4. This sum, divided amongst 41 superintendents, gives each on an average the very inadequate and trifling income of rupees 57 annas 5 and pice 5.

Seringapatam
29th October 1822.

H. Vibart
Assistant Collector in charge.

(Statement on following page)

VII

COLLECTOR, TINNEVELLY TO BOARD OF REVENUE: 7.11.1822

(TNSA: BRP Vol.931, Pro.18.11.1822 No.37, pp.10545-6)

I have now the honor of forwarding a complete account of schools in this district according to the prescribed Form. The accounts from the talook of Punjamahl not having been received at the time of my sending those of the other talooks.

The total under the head of population appears to have been erroneous, and is correctly given in the statement, now sent:

Tinnevelly, *J.B. Hudleston,*
7th November 1822. *Collector.*

(Statement on following page)

VIII

PRINCIPAL COLLECTOR, COIMBATORE TO BOARD OF REVENUE:

23.11.1822

(TNSA: BRP: Vol.932, Pro.2.12.1822, pp.10939-943, No.43)

To,

The President and Members of the Board of Revenue

Gentlemen,

1. I have the honor to forward the information called for in Mr Clarke's letter of the 25th July 1882 regarding the schools in the district.

2. The statement No.1 is drawn up after the Form which accompanied Mr Clarke's letter.

The statement No.2 shows the particular language taught in each school, the number of pupils, the average amount of stipends paid by parents, to the teachers, the average annual charge to pupils for the purchase of cadjans.

The statement No.3 shows the number of institutions in which Theology, Law and Astronomy are taught, the number of pupils educated in them, and the amount of maximum land granted by the Hindu Government, for their support, and assumed either by the Mussulman, or by the British Government.

3. The earliest age at which boys attend school is 5 years, they continue there until they are 13 or 14. Those who study Theology, Law, etc., begin at about 15 and continue to frequent the colleges until they have attained a competent knowledge in the Science, or until they obtain employment.

4. Besides their regular stipends, school masters generally receive presents, from the parents of their pupils, at the Dassarah and other great feasts; a fee is also given when the pupil begins a new book. The annual stipend from one pupil varies from Rs.14 to Rs.3 per annum, according to the circumstances of the parents. The school hours are from 6 a.m. to 10, and from 1 to 2 p.m. until 8 at night. Besides the several festivals they have regular holidays, 4 days in each month on the full moon, the new moon, and a day after each.

5. The education of females is almost entirely confined in this district to the dancing women, who are generally of the Kykeler caste, a class of weavers. There are exceptions to this rule, but the numbers are too insignificant to require notice.

6. There is a school for teaching English in the town of Coimbatore, which is superintended by an English writer belonging to this Cutcheree.

Coimbatore,	*(Signed) J. SULLIVAN,*
23rd November 1822.	*Principal Collector.*

(*Statements on following pages*)

IX

COLLECTOR OF MADURA TO BOARD OF REVENUE: 5.2.1823

(TNSA: BRP—Vol.942, Pro.13.2.1823, pp.2402-406 No.21)

1. I had previous to the receipt of the instructions of government made some little inquiry into the state of the schools in this district and have endeavoured to ascertain, should their number be increased, if the poorer classes would be induced to bring their children to them, to be educated amongst the lower class; I see little hope of such an improvement. They say as they are poor, their children are better employed in attending bullocks, etc., by which they gain a livelihood, than being at school. In the Fort of Madura and the different Cusbah villages some schools might be established with advantage. Many people of caste would, I have no doubt, send their children to such schools, and as the benefit derivable from education began gradually to develop itself, the numbers would increase. Five or 6 schools in the Fort of Madura, and 2 or 3 in each of the Cusbahs, granting the masters a small monthly salary of 30 to 40 fanams* would be sufficient, and I have no doubt the Heads of Villages would be induced to send their children there, which would render such establishments most desirable as very few Nattawkars throughout the district can either read or write, and are consequently totally dependent on the Curnams.

2. From the statement it would seem, that in a population of nearly 800,000, there are stated to be only 844 schools, and in them 13,781 children educated. That the number should be increased must be wished for.

3. From the several statements received from the different divisions, it does not appear that any Mauneom lands are enjoyed for the purpose of schools; but that the teachers are paid by the poorer classes of people from ½ to 1 fanam for each scholar per month, and from 2 to 3 and 5 fanams by those in better circumstances, and that a teacher derives from 30 to 60 cully fanams** per month in large villages, and from 10 to 30 fanams in small villages—scholars usually first attend school at the age of 5 and leave it from 12 to 15.

4. In Agrahrom villages inhabited by Bramins, it has been usual from time immemorial to allot for the enjoyment of those who study the Vaidoms (Religion), and Pooraunoms (Historical traditions), an extent of Mauneom land yielding from 20 to 50 fanams per annum, and in a few but rare instances to the extent of 100 fanams, and they gratuitously and generally instruct such pupils as may voluntarily be brought to them.

5. Female children devoted for the profession of dancing girls at the Hindoo temples are only instructed at schools.

Teroomungalom, *R. Peter,*
5th February, 1823. *Collector.*

(*Statement on following page*)

X

PRINCIPAL COLLECTOR, TANJORE TO BOARD OF REVENUE:

28.6.1823

(TNSA: BRP: Vol.953, Pro.3.7.1823 pp.5345-5347 No.61)

With reference to your Secretary's letter of the 25th of July last, and its enclosures, I have the honor now to transmit a statement in the prescribed Form, prepared from the Returns received from the Tasildars of the number of schools and colleges in this District accompanied by two other statements Nos.1 and 2, more in detail, which will I expect, afford every information, that your Board and government desire to receive on the subject, being necessary for me only to add that it does not appear, any funds granted for these institutions, have been either resumed or diverted from their original purpose.

Tanjore Negapatam, *J. Cotton,*
28th June, 1823. *Principal Collector.*

(*Statement on following pages*)

XI

COLLECTOR, MADRAS TO BOARD OF REVENUE: 13.11.1822

(TNSA: BRP: Vol.931, Pro.14.11.1822 pp.10, 512-13 No.57-8)

1. I have the honor to acknowledge the receipt of your letter under date the 25th July last, with one from government and to forward the statement therein called for.

2. Adverting to the Orders of Government above referred to I beg leave to submit the information I have been able to obtain on the several questions connected with the system of education adopted in this Collectorate.

3. The schools enumerated in the statement comprise only those in which the various descriptions of the Hindoo and Mussulman children are educated.

4. These children are sent to school when they are above five years old and their continuance in it depends in a great measure on their mental faculties, but it is generally admitted that before they attain their thirteenth year of age, their acquirement in the various branches of learning are uncommonly great, a circumstance very justly ascribed to an emulation and perseverance peculiar only to the Hindoo castes.

5. Astronomy, Astrology, etc., are in some instances taught to the children of the poorer class of Bramins gratis, and in certain few cases an allowance is given proportionate to the circumstances of the parents or guardians.

6. In this Collectorate there are no schools endowed by the public. Those denominated 'Charity schools' include a few institutions of that description under the immediate control of the missionary society. The scholars in them are therefore of various sects and persuasions.

7. These Charity schools are abolished at the pleasure of their supporters.

8. The allowances paid to each of the teachers in a school seldom exceed 12 pagodas per annum for every scholar.

Madras Cutcherry, *L.G.K. Murray,*
13th November 1822. *Collector.*

(*Statement on next page*)

XII

PRINCIPAL COLLECTOR, NORTH ARCOT DISTRICT TO BOARD OF REVENUE:

3.3.1823

(TNSA: BRP: Vol.944, Pro.10.3.1823, pp.2806-16 No.20-1)

1. Accompanying I have the honor to forward a statement of the colleges and other institutions in this District for the education of pupils.

2. In addition to the Form received with your Secretary's letter I have prepared an abstract, showing the different descriptions of these institutions, and the means by which they are supported.

3. Those receiving endowments from the government are as follows. The Persian schools at Arcot, mention of which was made in Mr Chamier's letter, transmitted by me to your Board under date 10th December 1822.

4. Some colleges (28) are established in different parts of the district, the expenses of which are defrayed from Mauneoms and Mairas, which have been granted by former governments on this account, and which are still appropriated to these purposes, the total of their amount is Rs.516-11-9.

5. A Persian School in the Sautgud talook is also supported on the grant of a *Yeomiah* of ¼ rupee per diem, where about 8 scholars are instructed in the Persian language, and a trifling Maira of rupees 5-8-4 is received for one of the colleges in the talook of Cauvareepauk. These form the whole of the expense defrayed by government on this account.

6. Certain of the institutions from different branches of learning will be seen entered as free of charge, these are conducted by persons of some acquirements and who voluntarily give up a part of their time for this purpose, but the greater portion of the seminaries are instituted by those gaining their livelihood by this means, and rates of charge are very variable, being according to the nature of the studies, or the means of the parties.

7. The Tamil, Taloogoo and Hindwy schools are the most extensive; to these the scholars are sent generally about the age of 5 and in the course of five or six years are generally found sufficiently forward to commence by assisting in the preparation or copying of the accounts, according to their different walks in life, sometimes as volunteers in the public Cutcherries or in the situations with Curnums, Shroffs, Merchants or others, whence they graduate to situations in the public service or their hereditary occupations.

Collector's Cutcherry
3rd March, 1823.

William Cooke,
Principal Collector.

(*Statements on following pages*)

STATEMENT OF THE NUMBER OF NATIVE SCHOOLS AND COLLEGES IN EACH DISTRICT OF THE NORTHERN DIVISION OF ARCOT AND OF THE NUMBER OF SCHOLARS

Name of the District		Schools & Colleges			Bramin Scholars			Vysea Scholars			Soodra Scholars		
		S	C	T	M	F	T	M	F	T	M	F	T
Chittoor Talook	(Audayanum	—	1	1	8	—	8	—	—	—	—	—	—
	(Hindoovee	3	—	3	28	—	28	1	—	1	3	—	3
	(Teloogoo	18	—	18	15	—	15	33	—	33	135	2	137
	(Tamul	7	—	7	—	—	—	—	—	—	72	—	72
	(Persian	1	—	1	—	—	—	—	—	—	—	—	—
	(English	1	—	1	2	—	2	—	—	—	3	—	3
		30	1	31	53	—	53	34	—	34	213	2	215
Tiruputty Talook	(Audayanum	—	2	2	57	—	57	—	—	—	—	—	—
	(Hindoovee	1	—	1	5	—	5	—	—	—	—	—	—
	(Teloogoo	16	—	16	48	—	48	51	—	51	160	—	160
		17	2	19	110	—	110	51	—	51	160	—	160
Cauvarepauk Talook	(Audayanum	—	9	9	69	—	69	—	—	—	—	—	—
	(Sausrapautum	—	3	3	34	—	34	—	—	—	—	—	—
	(Hindoovee	1	—	1	3	—	3	—	—	—	10	—	10
	(Teloogoo	23	—	23	43	—	43	36	—	36	191	11	202
	(Tamul	40	—	40	30	—	30	39	—	39	426	3	429
	(Persian	6	—	6	—	—	—	—	—	—	2	—	2
	(English	1	—	1	—	—	—	—	—	—	5	—	5
		71	12	83	179	—	179	75	—	75	634	14	648

Name of the District		All other Castes			Grand Total			Musulman Scholars			Total Hindoos & Musalman		
		M	F	T	M	F	T	M	F	T	M	F	T
Chittoor Talook	(Audayanum	—	—	—	8	—	8	—	—	—	8	—	8
	(Hindoovee	—	—	—	32	—	32	—	—	—	32	—	32
	(Teloogoo	—	—	—	183	2	185	4	—	4	187	2	189
	(Tamul	—	—	—	72	—	72	—	—	—	72	—	72
	(Persian	—	—	—	—	—	—	5	—	5	5	—	5
	(English	—	—	—	5	—	5	—	—	—	5	—	5
		—	—	—	300	2	302	9	—	9	309	2	311
Tiruputty Talook	(Audayanum	—	—	—	57	—	57	—	—	—	57	—	57
	(Hindoovee	—	—	—	5	—	5	—	—	—	5	—	5
	(Teloogoo	19	—	19	278	—	278	10	—	10	288	—	288
		19	—	19	340	—	340	10	—	10	350	—	350
Cauvarepauk Talook	(Audayanum	—	—	—	69	—	69	—	—	—	69	—	69
	(Sausrapautum	—	—	—	34	—	34	—	—	—	34	—	34
	(Hindoovee	—	—	—	13	—	13	—	—	—	13	—	13
	(Teloogoo	91	1	92	361	12	373	1	—	1	362	12	374
	(Tamul	46	—	46	541	3	544	4	—	4	545	3	548
	(Persian	—	—	—	2	—	2	66	—	66	68	—	68
	(English	—	—	—	5	—	5	—	—	—	5	—	5
		137	1	138	1025	15	1040	71	—	71	1096	15	1111

(Other talooks follow)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Sholungeer Talook	(Audayanum	—	5	5	34	—	34	—	—	—	—	—	—
	(Saustrapautum	—	7	7	23	—	23	—	—	—	—	—	—
	(Ganetesaustrum	—	2	2	3	—	3	—	—	—	—	—	—
	(Hindoovee	1	—	1	6	—	6	—	—	—	—	—	—
	(Teloogoo	16	—	16	29	—	29	8	—	8	83	—	83
	(Tamul	19	—	19	19	—	19	7	—	7	183	—	183
	(Persian	2	—	2	—	—	—	—	—	—	—	—	—
		38	14	52	114	—	114	15	—	15	266	—	266
Tiruvullum Talook	(Audayanum	—	6	6	20	—	20	—	—	—	—	—	—
	(Hindoovee	1	—	1	2	—	2	—	—	—	—	—	—
	(Teloogoo	4	—	4	12	—	12	9	—	9	10	—	10
	(Tamul	18	—	18	16	—	16	16	—	16	110	—	110
		23	6	29	50	—	50	25	—	25	120	—	120
Sautgud Talook	(Audayanum	—	1	1	9	—	9	—	—	—	—	—	—
	(Pautasalah	—	4	4	13	—	13	—	—	—	—	—	—
	(Grenthum	1	—	1	8	—	8	—	—	—	—	—	—
	(Teloogoo	6	—	6	7	—	7	6	—	6	20	—	20
	(Tamul	14	—	14	12	1	13	7	—	7	88	—	88
	(Persian	10	—	10	—	—	—	—	—	—	—	—	—
		31	5	36	49	1	50	13	—	13	108	—	108
Cuddapattum Talook	(Teloogoo	16	—	16	16	—	16	36	—	36	43	—	43

(1)	(2)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
Sholungeer Talook	(Audayanum	—	—	—	34	—	34	—	—	—	34	—	34
	(Saustrapautum	—	—	—	23	—	23	—	—	—	23	—	23
	(Ganetesaustrum	—	—	—	6	—	6	—	—	—	3	—	3
	(Hindoovee	—	—	—	3	—	3	—	—	—	6	—	6
	(Teloogoo	—	—	—	120	—	120	—	—	—	120	—	120
	(Tamul	3	—	3	212	—	212	1	—	1	213	—	213
	(Persian	—	—	—	—	—	—	9	—	9	9	—	9
		3	—	3	398	—	398	10	—	10	408	—	408
Tiruvullum Talook	(Audayanum	—	—	—	20	—	20	—	—	—	20	—	20
	(Hindoovee	—	—	—	2	—	2	—	—	—	2	—	2
	(Teloogoo	9	—	9	40	—	40	—	—	—	40	—	40
	(Tamul	19	—	19	161	—	161	15	—	15	176	—	176
		28	—	28	223	—	223	15	—	15	238	—	238
Sautgud Talook	(Audayanum	—	—	—	9	—	9	—	—	—	9	—	9
	(Pautasalah	—	—	—	13	—	13	—	—	—	13	—	13
	(Grenthum	—	—	—	8	—	8	—	—	—	8	—	8
	(Teloogoo	14	3	17	47	3	50	—	—	—	47	3	50
	(Tamul	1	—	1	108	1	109	29	—	29	137	1	138
	(Persian	—	—	—	—	—	—	110	5	115	110	5	115
		15	3	18	185	4	189	139	5	144	324	9	333
Cuddapattum Talook (Other talooks follow)	(Teloogoo	33	—	33	128	—	128	—	—	—	128	—	128

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Arcot Talook	(Audayanum	—	3	3	16	—	16	—	—	—	—	—	—
	(Saustrapautum	—	5	5	28	—	28	—	—	—	—	—	—
	(Hindoovee	3	—	3	12	—	12	—	—	—	—	—	—
	(Teloogoo	13	—	13	14	—	14	15	—	15	132	—	132
	(Tamul	50	—	50	38	—	38	10	—	10	662	—	662
	(Persian	9	—	9	—	—	—	—	—	—	—	—	—
	(English	1	—	1	4	—	4	—	—	—	13	—	13
		76	8	84	112	—	112	25	—	25	807	—	807
Pullecondah Talook	(Audayanum	—	1	1	2	—	2	—	—	—	—	—	—
	(Hindoovee	3	—	3	13	—	13	—	—	—	12	—	12
	(Teloogoo	17	—	17	21	—	21	46	—	46	130	11	141
	(Tamul	65	—	65	8	—	8	35	—	35	788	1	789
	(Persian	10	—	10	—	—	—	—	—	—	—	—	—
	(English	4	—	4	—	—	—	—	—	—	32	—	32
		99	1	100	44	—	44	81	—	81	962	12	974
Tervvttoor Talook	(Audayanum	—	3	3	16	—	16	—	—	—	—	—	—
	(Pautasalah	—	1	1	2	—	2	—	—	—	—	—	—
	(Hindoovee	1	—	—	8	—	8	—	—	—	—	—	—
	(Teloogoo	6	—	—	8	—	8	9	—	9	59	4	63
	(Tamul	46	—	46	97	—	97	31	—	31	471	—	471
		53	4	57	131	—	131	40	—	40	530	4	534

(Cols. 15-26 on next page)

(1)	(2)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
Arcot Talook	(Audayanum	—	—	—	16	—	16	—	—	—	16	—	16
	(Saustrapautum	—	—	—	28	—	28	—	—	—	28	—	28
	(Hindoovee	17	—	17	29	—	29	—	—	—	29	—	29
	(Teloogoo	8	1	9	169	1	170	—	—	—	169	1	170
	(Tamul	63	—	63	773	—	773	8	—	8	781	—	781
	(Persian	—	—	—	—	—	—	96	—	96	96	—	96
	(English	—	—	—	17	—	17	—	—	—	17	—	17
		88	1	89	1032	1	1033	104	—	104	1136	1	1137
Pullecondah Talook	(Audayanum	—	—	—	2	—	2	—	—	—	2	—	2
	(Hindoovee	—	—	—	25	—	25	—	—	—	25	—	25
	(Teloogoo	11	—	11	208	11	219	12	—	12	220	11	231
	(Tamul	17	1	18	848	2	850	64	—	64	912	2	914
	(Persian	—	—	—	—	—	—	81	4	85	81	4	85
	(English	—	—	—	32	—	32	2	—	2	34	—	34
		28	1	29	1115	13	1128	159	4	163	1274	17	1291
Tervvttoor Talook	(Audayanum	—	—	—	16	—	16	—	—	—	16	—	16
	(Pautasalah	—	—	—	2	—	2	—	—	—	2	—	2
	(Hindoovee	—	—	—	8	—	8	—	—	—	8	—	8
	(Teloogoo	—	—	—	76	4	80	—	—	—	76	4	80
	(Tamul	1	—	1	600	—	600	—	—	—	600	—	600
		1	—	1	702	4	706	—	—	—	702	4	706

(Other talooks follow)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Poloor Talook	(Audayanum	—	1	1	9	—	9	—	—	—	—	—	—
	(Saustrapautum	—	—	—	4	—	4	—	—	—	—	—	—
	(Teloogoo	1	—	1	11	—	11	5	—	5	4	—	4
	(Tamul	48	—	48	29	—	29	42	—	42	414	—	14
	(English	2	—	2	—	—	—	—	—	—	—	—	—
		51	1	52	53	—	53	47	—	47	418	—	418
Wundawash Talook	(Audayanum	—	6	6	38	—	38	—	—	—	—	—	—
	(Saustrapautam	—	2	2	6	—	6	—	—	—	—	—	—
	(Teloogoo	9	—	9	29	—	29	5	—	5	33	—	33
	(Tamul	47	—	47	31	—	31	8	—	8	404	—	404
		56	8	64	104	—	104	13	—	13	437	—	437
Sutawaid Talook	(Audayanum	—	3	3	6	—	6	—	—	—	—	—	—
	(Saustrapautum	—	—	—	2	—	2	—	—	—	—	—	—
	(Teloogoo	15	—	15	25	—	25	45	—	45	25	—	25
	(Tamul	10	—	10	—	—	—	39	—	39	12	—	12
		25	3	28	33	—	33	84	—	84	37	—	37
Bungauree Talook	(Audayanum	—	2	2	8	—	8	—	—	—	—	—	—
	(Caveapautum	—	1	1	1	—	1	—	—	—	—	—	—
	(Teloogoo	9	—	9	19	—	19	25	—	25	25	—	25
	(Tamul	1	—	1	—	—	—	—	—	—	4	—	4
		10	3	13	28	—	28	25	—	25	29	—	29

(Cols. 15-26 on next page)

(1)	(2)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
Poloor Talook	(Audayanum	—	—	—	9	—	9	—	—	—	9	—	9
	(Saustrapautum	—	—	—	4	—	4	—	—	—	4	—	4
	(Teloogoo	—	—	—	20	—	20	—	—	—	20	—	20
	(Tamul	25	—	25	510	—	510	11	—	11	521	—	521
	(English	—	—	—	—	—	—	18	2	20	18	2	20
		25	—	25	543	—	543	29	2	31	572	2	574
W undawash Talook	(Audayanum	—	—	—	38	—	38	—	—	—	38	—	38
	(Saustrapautam	—	—	—	6	—	6	—	—	—	6	—	6
	(Teloogoo	—	—	—	67	—	67	—	—	—	67	—	67
	(Tamul	4	—	4	447	—	447	—	—	—	447	—	447
		4	—	4	558	—	558	—	—	—	558	—	558
Sutawaid Talook	(Audayanum	—	—	—	6	—	6	—	—	—	6	—	6
	(Saustrapautum	—	—	—	2	—	2	—	—	—	2	—	2
	(Teloogoo	83	1	84	178	1	179	1	—	1	179	1	180
	(Tamul	40	—	40	91	—	91	1	—	1	92	—	92
		123	1	124	227	1	228	2	—	2	279	1	280
Bungauree Talook	(Audayanum	—	—	—	8	—	8	—	—	—	8	—	8
	(Caveapautum	—	—	—	1	—	1	—	—	—	1	—	1
	(Teloogoo	—	—	—	75	—	75	—	—	—	75	—	75
	(Tamul	—	—	—	4	—	4	—	—	—	4	—	4
(Other talooks follow)		—	—	—	88	—	88	—	—	—	88	—	88

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Mogaraul Talook	(Audayanum	—	1	1	6	—	6	—	—	—	—	—	—
	(Saustrapautum	—	1	1	4	—	4	—	—	—	—	—	—
	(Hindoovee	2	—	2	15	—	15	—	—	—	—	—	—
	(Teloogoo	30	—	30	15	—	15	64	—	64	86	—	86
		32	2	34	40	—	40	64	—	64	86	—	86
Venkatagery Coteh Talook	(Teloogoo	2	—	2	—	—	—	2	—	2	6	—	6
Abstract	(Audayanum	—	43	43	298	—	298	—	—	—	—	—	—
	(Saustrapautum	—	24	24	117	—	117	—	—	—	—	—	—
	(Ganatesaustrum	—	2	2	3	—	3	—	—	—	—	—	—
	(Grenthem	1	—	1	8	—	8	—	—	—	—	—	—
	(Hindoovee	16	—	16	92	—	92	1	—	1	25	—	25
	(Teloogoo	201	—	201	312	—	312	395	—	395	1142	28	1170
	(Tamul	365	—	365	280	1	281	234	—	234	3634	4	3638
	(Persian	40	—	40	—	—	—	—	—	—	5	—	5
	(English	7	—	7	6	—	6	—	—	—	53	—	53
	Grand Total	630	69	699	1116	1	1117	630	—	630	4856	32	4888

Total Population	Male	Female	Total	Total Population	Male	Female	Total
1. Chittoor Talook	2835	2618	5453	5. Tiruvallam Talook	2732	2314	5096
2. Tiruputty Talook	1814	1536	3350	6. Sautgud Talook	2172	1682	3854
3. Cauvarepauk Talook	5580	4578	10758	7. Cuddapanuttum Talook	1001	780	1781
4. Sholunger Talook	2575	1791	4366	8. Arcot Talook	6254	5915	12169

(1)	(2)	(3)	(7)	(8)	(9)	(10)	(11)	(12)
Town & Villages belonging to His Highness the Rajah	2	Rajasambapoorama	Venkobahchary	—	1	—	—	1
		Annachetterum	Soobahbutt	—	2	—	—	2
	5	Sakoovarumbapporam	Jeagnadavadiar	—	5	—	—	5
			Jyahsastry	—	17	—	—	17
			Narayanasastry	—	5	—	—	5
			Rajasastry	—	2	—	—	2
		Rajasambahpettah	Appausastryvadiar		1			1
		Mulliamanachatram	Punchanadyvudiar	—	2	—	—	2
	2	Dropdambapooram	Soobramenysastry	—	8	—	—	8
	2	Soolachnamcapooram	Yeganarainsastry	—	4	—	—	4
			Lingyah	—	4	—	—	4
		Sydambayeepooram	Ramasashasastry	—	15	—	—	15
			Vedarinyavadiar	—	10	—	—	10
		Yemoonam—	Soobaditchetar	—	2	—	—	2
		Cahpettah	Vengoosastry		3			3
		Mohanam	Ragoonadiengar	—	3	—	—	3
	4	Cahpooram						
	4	Rajakomarambahpooram	Ragoonadachary	—	3	—	—	3
			Annahvedauny	—	2	—	—	2
			Auyaloowadiar	—	4	—	—	4
			Sashavadiar	—	2	—	—	2
			Umbaviyas	—	3	—	—	3
			Jyahavadiar	—	5			5
			Jyahovingar	—	5	—	—	5
			Jyahviengar	—	8	—	—	8
Total	71		71		407	—	—	407
Grand Total	109				769	—	—	769

Tanjore Nagapatam 28th June 1823

J. Cotton, Principal Collector

ABSTRACT SHOWING THE DIFFERENT DESCRIPTIONS OF

	Schools	Colleges	Total	No. of Scholars	The time which scholars usually continue at school	Colleges
Audayanum or Theological Studies	—	43	43	298	10 or 12 years	7 1 7 28
		43	43	298		43
Sastrapottom or Hindoo law etc.)	—	24	24	117	8 or 9 years	18 2 1 3
	—	24	24	117		24
Ganeeta Sastrum) or Astronomy)	—	2	2	3	10 or 12 years	2
Grundum	1	–	1	8)	5 or 6 years	3
Hindvee	16	—	16	135)		580
Teloogoo	201	—	201	2218)		
Tamul	365	—	365	4506)		

Scholars	Remarks	Amount		
		Rs.	A.	P.
84	Free of charge	—	—	—
12	Ditto – the teacher being their own relatives	—	—	—
39	The monthly charge to each scholar being from 1 Annah and 2 pice the lowest rate and 2 Rs the highest rate making the yearly charge to each scholar of the lower class 14 Annas and 24 Rs as the higher Class Total monthly receipts of the 7 colleges Rs.2.9.6 or yearly charge of -ditto-	331	2	—
163	Public Colleges Caw. Annas Teerwa Maniem Poonjee 12 4 ¾ 36.12.6) Nunjee 26 4 ¾ 342.13.8) 38 8 ¾ 379.10.2) Mairah — — 137.01.7) Rupees 516.11.9)	516	11	9
	The Annual Allowance to each teacher in the Colleges is from Rs.3.8 the lower class and 36 Rs. and 12 as. the higher class.			
298	Yearly charge	847	13	9
81	Free of Charge	—	—	—
14	Ditto – the teachers being their own relatives	—	—	—
4	Public Colleges Mairah in Unbee Village amounts to	5	8	4
18	The monthly charge to each Scholar is from 2 Annas and 6 pice the lower rate and 1 Re the higher rate making the yearly charge to each scholar of the lower class 1 Rs. and 14 Annas, and 12 Rs. as the higher rate–Total monthly Rs.8-11-6 or yearly charge of Ditto	104	10	—
117		110	2	4
3	Free of Charge	—	—	—
131	Free of Charge	—	—	—
6736	The Monthly charge to each Scholar being from 1 a. and 3 pice the lower rate and 1 Re 12 as. the higher rate making the yearly charge to each scholar of the			

(Continued)

	Schools	Colleges	Total	No. of Scholars	The time which scholars usually continue at school	Colleges
(...contd.)						
	583	—	583	6867		583
Persian	40	—	40	398		1
						1
					7 or 8 years	6
						1
						31
						40
	40		40	398		
English	7	—	7	61	6 or 7 years	3
						4
	7	—	7	61		7

Collectors Cutcherry, 3rd March 1823

Scholars	Remarks	Amount Rs.	A.	P.
	lower class 15 annas and 21 Rs as the higher rate—Total monthly receipts of the 580 Schools is Rs. 1795-0-5 ¼ or yearly charge of -ditto-	21540	5	4
6867		21540	5	4
13	Free of Charge	—	—	—
2	-do- teachers being their own relatives	—	—	—
68	Public schools—1 School consists of 8 scholars established at Paranambut in Sautgud talook—Mahommed Ghouse is the teacher who receives a Yeomiah¼ Rupee per diem—7½ Rupees per month—or yearly allowance is Rs..90	90	—	—
	Cusba Arcot Schools consist of 60 scholars @12 per each School—5 Tutors @4 Rupees each per month—Rs.20	20	—	—
	1. Darogah Gholum Mahuddeen @20 Rs. per month—Expence	20	—	—
	Keechudu or boiled rice allowed once per day is	63	7	8
	1. Cook	2	8	—
	Monthly	105	15	8
	or yearly charge	1271	12	—
		1361	12	—
7	Nabobs—1. Tutor named Moollah Saheb at Mailcoopum Village Yearly allowance granted to him is Rupees	29	7	11
308 398	The monthly charge—to each scholar being from 2 annas and 6 pice the lower rate and 2 Rs. the higher rate making the yearly charge to each scholar of the lower class. 1 Rupee and 14 annas and 24 Rs. as the higher rate—Total monthly receipts of the 31 Schools Rs. 119-4-2 or	1431	2	—
	Yearly charges	2822	5	—
17	Free of charge	—	—	—
44	The monthly charge to each scholar being from 10 annas the lower rate and 3 Rupees 8 Annas the higher rate—Making the yearly charge to each Scholar of the lower Classes 7½ Rs., and 42 Rs. as the higher rate—Total monthly receipts of the 4 schools is Rupees	45	—	—
61	Yearly charge is	540	—	—

XIII

COLLECTOR OF CHINGLEPUT TO BOARD OF REVENUE:

3.4.1823

(TNSA: BRP: Vol.946, Pro.7.4.1823 pp.3493-96 No.25)

1. I have the honor to acknowledge the receipt of your Secretary's letter of the 25th of July last, and to transmit a statement in the prescribed Form, respecting the places of tuition and number of scholars in the this district.

2. There are no colleges properly so called but there are a few places in which the higher branches of learning are taught to a small number of pupils which I have classed separately.

3. A village school master earns from 3½ to 12 rupees per month. I think the average is no more than 7 rupees. The scholars are subsisted in their own houses and only attend the school during a part of the day. For the most part their attendance is very irregular. Few of the school masters are acquainted with the grammar of the language which they profess to teach, and neither the master nor scholars understand the meaning of the sentences which they repeat.

4. I do not find that any allowance has been made by the Native Governments for education in this district, but in some villages there are trifling Mauneoms, from a quarter of a Cawny to two Cawnies of land, for Vaidavartyars or Theological teachers.

5. I have published in the district that there is no intention to interfere with the people in the mode of education, and that no change is contemplated except it be to aid existing institutions.

6. Education cannot well, in a civilized state, be on a lower scale than it is and I much fear there does not exist the same desire for improvement as is reported of the natives of Bengal.

Zillah Chingleput,
Poodooputnum,
3rd April 1823.

S. Smalley,
Collector.

(*Statement on next page*)

XIV

PRINCIPAL COLLECTOR OF SOUTH ARCOT TO BOARD OF REVENUE:

29.6.1823 Cuddalore

(TNSA: BRP: Vol.954, Pro.7.7.1823, pp.5622-24 No.59-60)

1. I have the honor to acknowledge the receipt of your Deputy Secretary's letter under date the 25th of July 1822 with its enclosures, in conformity to which I herewith submit a statement of the number of native schools and colleges in this Collectorate drawn out according to the Form received from your Board.

2. The number of schools which this statement exhibits have each one teacher where reading and writing in the Malabar and Gentoo languages, are taught. The payment made for each scholar is from 1 fanam to 1 Pagoda per month according to the condition and circumstances of their parents. The scholars generally attend the school from 6 to 10 o'clock in the morning then from 12 to 2 and lastly from 3 to 7 and 8 o'clock in the evening.

3. There are no private or public schools for teaching Technology, Law, Astronomy, etc., in this Collectorate, and no allowance of any sort has ever been granted by the Native Governments to schools the masters of which are entirely supported by the parents of the scholars.

Principal Collector's
Cutcherry, Cuddalore,
29th June, 1823.

C. Hyde,
Principal Collector.

(Statement on following pages)

XV

COLLECTOR, NELLORE TO BOARD OF REVENUE: 23.6.1823

(TNSA: BRP: Vol.952, Pro.30.6.1823 pp.5188-91 No.26)

1. I would have replied to your letter of the 25th July last before now, had I not met with unavoidable difficulties in obtaining the required information about the native schools they referred to, in the Zemindary talooks.

2. I herewith forward the statement A prepared according to the Form conveyed in your letter above mentioned, showing the number of schools, scholars, etc., in the district under my charge.

3. The statement B which accompanied this letter shows the number of persons, who teach Vedums, Arabic, Persian, etc., on receiving allowances in money or land granted for the same by the Carnatic Government and continued by the Company, and it also shows the number of scholars as well as the amount of the said allowances.

4. It is to be observed that the schools mentioned in the statement A are not endowed by the public with any emoluments. They are partly established occasionally by individuals for the education of their own children and partly by the teachers themselves, for their own maintenance.

5. It is stated that the scholars in these schools continue therein from 3 to 6 years. The school master is paid from 2 annas to 4 rupees monthly for each scholar, and the expenses for the subsistence of a scholar is about 3 rupees monthly, and one rupee for his writing things, etc., and 2 rupees if it is the English language.

6. The natives, I understand, send their children to school when they are about 5 years of age and besides the allowance mentioned in the preceding paragraph each scholar gives him about one seer rice once every fortnight, at the new and full moons. They also pay him some presents when they are first put in the school, and after they finish the reading of any of their introductory books, such as Baularamayanum, Amarum, etc.,

and also pay a present to him when they complete their education, and leave the school.

7. The native schools in the district are not permanently held by the teachers; some people who are anxious to have their children educated soon employ learned men to undertake their children's education separately in their own houses, settling with them their wages from 2 annas to 4 rupees monthly, and also give them victuals in their houses. Some who cannot sufficiently pay the teachers out of their own money procure some other children in addition to their own for being educated and get adequate allowance to them by way of subscription from these children, from one quarter, to one rupee each month. When they see their children improved they give leave to the teachers and consequently break up the schools.

I beg leave to subjoin a list of the description of the native schools mentioned in the statement A adverted to:

Genttoo Schools	642
Vedum Schools	83
Astronomy Schools	5
Laws Schools	15
Astrology Schools	3
English Schools	1
Persian and Arabic Schools	50
Tamil Schools	4
Hindoostany Music Schools	1
Total native schools	804

Nellore, *T. Fraser,*
23rd
June 1823. *Collector.*

(Statement on following pages)

XVI

FROM COLLECTOR, MASULIPATAM TO BOARD OF REVENUE:

(TNSA: BRP: Pro.13.1.1823)

To,
The President and Members of the Board of Revenue,
Fort St. George.

Gentlemen,

I have the honour to forward the statement of the number of native schools and colleges and of the number of scholars in each of the Collectorate under my charge in the Form which accompanied your Secretary's letter of 25th July last.

2. In order to render the information more complete under the head of 'schools and colleges', the several languages and sciences are distinguished, and one additional column is introduced for Chatreya scholars next to that of the Bramins. The scholars who are instructed in the Gentoo* language usually enter the schools in their fifth year, and continue in them till about the twelfth, or seventeenth of their age. The school hours are from six to nine in the morning, and again from eleven to six in the evening.

3. They are first taught to read the letters, spelling, and the names both common and proper, writing on the sand with their fingers. When they are perfect in that, they are taught the reading of books (Balaramayanum, Amram, etc.), on cadjans (useful for the boys) in Sanscrit and Gentoo as well as letters of correspondence, books of mathematics, accounts, etc., etc., according to the pleasure of the relations of the boys.

4. As soon as the boys have learnt to write well on cadjans or on paper they are removed from the schools to some of the public or private offices of curnums, paishcar, or to be improved in keeping accounts, or to schools of foreign languages such as Persian, English, etc.

5. If the boys are of Vydeea Bramins, they are, so soon as they can read properly, removed direct from schools to colleges of Vadums and Sastrums.

6. The former is said to be the mother to all the sciences of Hindoos, and the latter is the common term for all those sciences, which are in Sanscrit, viz., Law, Astronomy, Theology, etc., etc. These sciences are taught by Bramins only, and more especially Bramins holding Agrahrums, Mauneoms, Rozunahs, or other emoluments, whose duty it is to observe their religious obligation on all occasions.

7. In most of the towns, villages and hamlets of this country, the Bramins are teaching their boys the Vadums and Sastrums, either in colleges or elsewhere in their respective houses.

8. No school or college appears to have been ever built separately for that purpose, or to have been endowed by the public. Two years ago Vencatanarsimmah Appahrow, the zemindar at Ellore, caused a charity school for Gentoo scholars to be opened in that town by a school master on a fixed monthly stipend of 3 M. pagodas. The scholars instructed therein are 33 in number, but they in general subsist upon charity.

9. With the exception of dancing girls it is very seldom that women of other castes are publicly educated in this part of the country.

10. The charges to a Gentoo scholar average 6 annas per month for papers, cadjans, books, etc., etc., besides food and raiment as well as the pay of their school master. Both of these charges of course depend upon the rank and circumstances of the relations of the scholars. The wages to the school master are commonly from ¼ to 2 rupees for each boy.

11. The colleges of Sanscrit, law and astronomy alluded to in the statement are opened by learned and charitable persons, some of whom have mauniums etc., and part are supported by charity or by presents from their own scholars but receive no fixed wages. Some few of the scholars have in like manner mauniums, etc., which they inherit from their forefathers, and a few are supported by some respectable teachers, or by charity subscriptions. The charges of each scholar are estimated upon an average at 60 rupees per year for their subsistence, books, etc.

12. By the statement now submitted it appears that 4,847 scholars are receiving education in 465 Gentoo schools, while only 199 are studying the Sastrums in 49 colleges.

13. The number of schools for teaching the Persian language are few in this part of the country. The Mussulman scholars (with the exception of the 41 who are learning the Gentoo language) are 236 in 19 schools, their continuance in the schools about 9 years (from 6 to 15 of their age), the monthly Pay to the school master is from a quarter to one rupee; and the charges for writing things are estimated at 4 annas each per month. Some of the learned Mussulmans are teaching a few of the scholars without receiving reward on account of friendship for their relations, and others for a charity; for instance Hussain Alli Fukeer son of Muhudeen Shaw at Ellore.

14. None of the institutions appear to have been regularly endowed, although probably encouragement and support was given to them by the more opulent and powerful natives of former days.

Masulipatam, *J.F. Lane,*
3 January 1823. *Collector.*

(Statement on following pages)

XVII

COLLECTOR OF VIZAGAPATAM TO BOARD OF REVENUE:

14.4.1823

(TNSA: BRP: Vol.947 Pro.1.5.1823 pp.3847-50 Nos.6-7)

1. I have the honor to acknowledge the receipt of your Secretary's letter of the 25th July last requiring a Statement of Schools and Colleges in this District.

2. Having now acquired the desired information I beg leave to forward the statement which is drawn out according to the prescribed Form.

Waltair Collector's
Cutcherry,
14th April 1823.

J. Smith,

Collector

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(Statement on following pages)

XVIII

COLLECTOR, TRICHINOPOLY TO BOARD OF REVENUE: 23.8.1823

(TNSA: BRP: Vol.959 Pro.28.8.1823 pp.7456-57 Nos.35-36)

1. Information having at length been obtained on the subject of your letter of the 25th July 1822, I do myself the honor to submit the result. The annexed statement drawn up in correspondence with that which accompanied your letter, will show the number of native schools and colleges in this district, and the number of scholars male as well as female Hindoos of all castes, and Mussulmans, who are educated in them.

2. The scholars generally continue in the schools from the age of 7 to 15 and the average yearly expense of education is about 7 pagodas. There are no schools or colleges in this district for the support of which my public funds are appropriated, and in institutions for teaching Astronomy—Theology or any other science.

3. In the talook of Jyalore alone, and no other, there are 7 schools, which were formerly endowed by some Native Government with between 44 and 47 Cawnies of land for the maintenance of the teachers.

Trichinopoly,
23rd August, 1823.

G.W. Saunders,
Collector.

(Statement on following page)

XIX

COLLECTOR, BELLARY TO BOARD OF REVENUE:
17.8.1823

(TNSA: BRP: Vol.958 Pro.25.8.1823 pp.7167-85 Nos.32-33)

1. The delay of my Amildars, in furnishing the requisite returns, has hitherto prevented my submitting to you the enclosed statement called for in your orders of the 25th July 1822, and 19th of June last.

2. The population of this District is specified in the enclosed statement at 9,27,857 or little less than a million of souls. The number of schools is only 533 containing no more than, 6,641 scholars, or about twelve to each school, and not seven individuals in a thousand, of the entire population.

3. The Hindoo scholars are in number 6,398, the Mussulman scholars only 243, and the whole of these are males, with the exception of only sixty girls, who are all Hindoos exclusively.

4. The English language is taught in one school only. The Tamil in four, the Persian in twenty-one, the Mahratta in twenty-three, the Teloogoo in two hundred and twenty-six, and the Carnataca in two hundred and thirty-five. Besides these, there are twenty-three places of instruction, attended by Bramins exclusively, in which some of the Hindoo sciences, such as Theology, Astronomy, Logic and Law, are still imperfectly taught in the Sanscrit Language.

5. In these places of Sanscrit instruction in the Hindoo sciences, attended by youths, and often by persons far advanced in life, education is conducted on a plan entirely different from that pursued in the schools, in which children are taught reading, writing, and arithmetic only, in the several vernacular dialects of the country. I shall endeavour to give a brief outline of the latter, as to them the general population of the country is confined, and as that population consists chiefly of Hindoos, I shall not dwell on the few Mussulman schools in which Persian is taught.

6. The education of the Hindoo youth generally commences when they are five years old. On reaching this age, the master and scholars of the school to which the boy is to be sent, are invited to the house of his parents. The whole are seated in a circle round an image of Gunasee, and the child to be initiated is placed exactly opposite to it. The school master, sitting by his side, after having burnt incense and presented offerings, causes the child to repeat a prayer to Gunasee entreating wisdom. He then guides the child to write with its finger in rice the mystic name of the deity, and is dismissed with a present from the parents, according to their ability. The child, next morning commences the great work of his education.

7. Some children continue at school only five years, the parents, through poverty, or other circumstances, being often obliged to take them away, and consequently, in such cases, the merest smattering of an education is obtained; and when parents take a lively interest in the culture of their children's minds, they not infrequently continue at school as long as fourteen and fifteen years.

8. The internal routine of duty for each day will be found, with very few exceptions, and little variation, the same in schools. The hour generally for opening school is six o'clock. The first child who enters has the name of *Saraswatee*, or the Goddess of learning, written upon the palm of his hand, as a sign of honor, and, on the hand of the second, a cypher is written, to show that he is worthy, neither of praise nor censure, the third scholar receives a gentle stripe; the fourth two, and every succeeding scholar that comes an additional one. This custom as well as the punishments in native schools, seem of a severe kind. The idle scholar is flogged, and often suspended by both hands, and a pulley, to the roof, or obliged to kneel down and rise incessantly, which is most painful and fatiguing but perhaps a healthy mode of punishment.

9. When the whole are assembled, the scholars according to their number and attainments, are divided into several classes. The lower ones of which are placed partly under the care of monitors, whilst the higher ones are more immediately under the superintendence of the master, who at the same time has his eye upon the whole school. The number of classes is generally four; and a scholar rises from one to the other, according to his capacity and progress. The first business of a child on entering

school is to obtain a knowledge of the letters, which he learns by writing them with his finger on the ground in sand, and not by pronouncing the alphabet as among European nations. When he becomes pretty dexterous in writing with his finger in sand, he has then the privilege of writing either with an iron style on cadjan leaves, or with a reed on paper, and sometimes on the leaves of the *aristolochia identica*, or with a kind of pencil on the *Hulligi* or *Kadata*, which answer the purpose of slates. The two latter in these districts are the most common. One of these is a common oblong board about a foot in width and three feet in length. This board, when plained smooth, has only to be smeared with a little rice and pulverized charcoal and it is then fit for use. The other is made of cloth, first stiffened with rice water, doubled in folds, resembling a book, and is then covered with a composition of charcoal and several gums. The writing on either these may be effaced by a wet cloth. The pencil used is called *Buttapa*, a kind of white clay substance, somewhat resembling a crayon, with the exception of being rather harder.

10. Having attained a thorough knowledge of the letters, the scholar next learns to write the compounds, or the manner of embodying the symbols of the vowels in the consonants and the formation of syllables, etc., then the names of men, villages, animals, etc., and finally arithmetical signs. He then commits to memory an addition table, and counts from one to a hundred; he afterwards writes easy sums in addition, and subtraction of money; multiplication and the reduction of money, measures, etc. Here great pains are taken with the scholars, in teaching him the fractions of an integer, which descend, not be tens as in our decimal fractions, but by fours, and are carried to a great extent. In order that these fractions, together with the arithmetical table, in addition, multiplication, and those on the threefold measures of capacity, weight, and extent, may be rendered quite familiar to the minds of the scholars, they are made to stand up twice a day, in rows, and repeat the whole after one of the monitors.

11. The other parts of a native education consist in deciphering various kinds of hand writing, in public and other letters, which the school master collects from the different sources; writing common letters, drawing up forms of agreement; reading; fables and legendary tales; and committing various kinds of poetry to memory, chiefly with a view to attain distinctness and clearness in pronunciation, together with readiness and correctness in reading any kind of composition.

12. The three books which are most common in all the schools, and which are used indiscriminately by the several castes, are the *Ramayanum, Maha Bharata*, and *Bhagvata*; but the children of the manufacturing class of people have in addition to the above, books peculiar to their own religious tenets; such as the *Nagalingayna Kutha, Vishvakurma Poorana, Kumalesherra Kalikamahata*; and those who wear the Lingum such as the *Busvapoorana, Raghavankunkauya Geeroja Kullana, Unabhavamoorta, Chenna Busavaswara Poorana, Gurilagooloo,* etc., which are all considered sacred, and are studied with a view of subserving their several religious creeds.

13. The lighter kind of stories which are read for amusement, are generally the *Punchatantra, Bhatalapunchavansatee, Punklee Soopooktahuller, Mahantarungenee*. The books on the principles of the vernacular languages themselves, are the several dictionaries and grammars, such as the *Nighantoo, Umara, Subdamumbured, Shubdeemunee Durpana, Vyacurna Andradeepeca, Andhranamasungraha,* etc., etc., but these last, and similar books, which are most essential, and, without which, no accurate or extensive knowledge of the vernacular languages can be attained, are, from the high price of manuscripts and the general poverty of the masters, of all books, the most uncommon in the Native Schools; and such of them which are found there are in consequence of the ignorance, carelessness, and indolence of copyists in general, full of blunders, and in every way most incorrect and imperfect.

14. The whole of the books, however, in the Teloogoo and Carnataca schools, which are by far the most numerous in this district, whether they treat of religion, amusement, or the principles of these languages, are in verse; and in a dialect quite distinct from that of conversation and business. The alphabets of the two dialects are the same, and he who reads the one, can read, but not understand, the other also. The natives, therefore, read these (unintelligible) books to them, to acquire the power of reading letters, in the common dialect of business; but the poetical is quite distinct from the prose dialect, which they speak and write; and though they read these books, it is to the pronunciation of the syllables, not to the meaning or construction of the words, that they attend. Indeed few teachers can explain, and still fewer scholars understand, the purport of the numerous books which they thus learn to repeat from memory. Every school boy can repeat verbatim a vast number of verses, of

the meaning of which, he knows no more than the parrot that has been taught to utter certain words. Accordingly, from studies, in which he has spent many a day of laborious, but fruitless toil, the native scholar gains no improvement, except the exercise of memory and the power to read and write on the common business of life; he makes no addition to his stock of useful knowledge, and acquires no moral impressions. He has spent his youth in reading syllables, not words, and, on entering into life, he meets with hundreds and thousands of books of the meaning of which he can form not even the most distant conjecture, and as to the declension of a noun, or the conjugation of a verb, he knows no more than of the most abstruse problem in Euclid. It is not to be wondered at, with such an imperfect education, that, in writing a common letter to their friends, orthographical errors and other violations of grammar, may be met with in almost every line written by a native.

15. The government could not promote the improved education of their native subjects in these districts more, than by patronizing versions, in the common prose and spoken dialect, of the most moral parts of their popular poets and elementary works, now committed to memory in unintelligible verse. He who could read would then understand what he reads, which is far from the case at present. I am acquainted with many persons very capable of executing such a task; and, in the Teloogoo language, would gladly superintend it, as far as is in my power, at this distance from the Presidency.

16. The economy with which children are taught to write in the native schools, and the system by which the more advanced scholars are caused to teach the less advanced and at the same time to confirm their own knowledge is certainly admirable, and well deserved the imitation it has received in England. The chief defects in the native schools are the nature of the books and learning taught and the want of competent masters.

17. Imperfect, however, as the present education of the natives is, there are a few who possess the means to command it for their children even were books of a proper kind plentiful and the master every way adequate to the task imposed upon him, he would make no advance from one class to another, except as he might be paid for his labour. While learning the first rudiments, it is common for the scholar to pay to the teacher a quarter

of a rupee, and when arrived as far as to write on paper, or at the higher branches of arithmetic, half a rupee per mensem. But in proceeding further such as explaining books, which are all written in verse, giving the meaning of Sanscrit words, and illustrating the principles of the vernacular languages, such demands are made as exceed the means of most parents. There is, therefore, no alternative, but that of leaving their children only partially instructed, and consequently ignorant of the most essential and useful parts of a liberal education. But there are multitudes who cannot even avail themselves of the advantages of this system, defective as it is.

18. I am sorry to state that this is ascribable to the gradual but general impoverishment of the country. The means of the manufacturing classes have been, of late years greatly diminished, by the introduction of our own European manufactures, in lieu of the Indian cotton fabrics. The removal of many of our troops, from our own territories, to the distant frontiers of our newly subsidized allies, has also, of late years, affected the demand for grain, the transfer of the capital of the country, from the Native Governments, and their Officers, who liberally expended it in India, to Europeans, restricted by law from employing it even temporarily in India, and daily draining it from the land, has likewise tended to this effect which has not been alleviated by a less rigid enforcement of the revenue due to the state. The greater part of the middling and lower classes of the people are now unable to defray the expenses incident upon the education of their offspring, while their necessities require the assistance of their children as soon as their tender limbs are capable of the smallest labour.

19. It cannot have escaped the Government that of nearly a million of souls in this district, not 7,000 are now at school; a proportion which exhibits but too strongly the result above stated. In many villages, where formerly there were schools, there are now *none*; and in many others, where there were large schools, now only a few of the children of the most opulent are taught, others being unable, from poverty, to attend or to pay what is demanded.

20. Such is the state, in this district, of the various schools, in which reading writing, and arithmetic, are taught in the vernacular dialects of the country, as has been always usual in India, by teachers who are paid by their scholars. The higher branches of learning on the contrary, have always, in this

country, been taught in Sanscrit; and it has ever in India, been deemed below the dignity of science, for her professors to barter it for hire. Lessons in Theology, Astronomy, Logic and Law, continue to be given *gratuitously* as of old, by a few learned Bramins, to some of their disciples. But learning, though, it may proudly decline to sell its stores, has never flourished in any country, except under the encouragement of the ruling power and the countenance and support, once given to science in this part of India, have long been withheld.

21. Of the 533 institutions for education, now existing in this district, I am ashamed to say not one now derives any support from the state. I have therefore received, with peculiar satisfaction, the inquiries instituted by the Honorable the Governor-in-Council, on this interesting subject; and trust that this part of India may benefit from the liberality which dictated the record of his intention, to grant new funds where the same may be deemed expedient, and to restore to their original purpose, all funds diverted from this source.

22. There is no doubt that in former times, especially under the Hindoo Governments very large grants, both in money, and in land, were issued for the support of learning. Considerable *Yeomiahs*, or grants of money, now paid to Bramins from my treasury, and many of the numerous and valuable Shotrium villages, now in the enjoyment of Bramins in this district, who receive one-fourth, one-third, one-half, two-thirds, and sometimes the whole, of their annual revenue, may, I think, be traced to this source. Though it did not consist with the dignity of learning to receive from her votaries hire; it has always in India been deemed the duty of Government to evince to her the highest respect, and to grant to her those emoluments which she could not, consistently with her character receive from other sources; the grants issued by former governments, on such occasions, contained, therefore, no unbecoming stipulations on conditions. They all purport to flow from the free bounty of the ruling power, merely to aid the maintenance of some holy or learned man, or to secure his prayers for the state. But they were almost universally granted to learned or religious persons, who maintained a school for one or more of the sciences, and taught therein gratuitously; and though not expressed in the deed itself, the duty of continuing such gratuitous instruction was certainly implied in all such grants.

23. The British Government, with its distinguished liberality, has continued all grants of this kind and even in many cases where it was evident that they were merely of a *personal* nature. But they have not, until now, intimated any intention to enforce the implied, but now dormant, condition of these grants. The revenue of the original grantee has descended, without much inquiry, to his heirs. But his talents and acquirements have not been equally hereditary, and the descendants of the original grantees will rarely be found to possess either their learning, or powers of instruction. Accordingly, considerable alienations of revenue, which formerly did honor to the state, by upholding and encouraging learning, have deteriorated, under our rule, into the means of supporting ignorance; whilst science deserted by the powerful aid she formerly received from government, has often been reduced to beg her scanty and uncertain meal from the chance benevolence of charitable individuals; and it would be difficult to point out any period in the history of India, when she stood more indeed of the proffered aid of government, to raise her from the degraded state into which she has fallen, and dispel the prevailing ignorance which so unhappily pervades the land.

24. At a former period, I recollect, that the government, on the recommendation of the College Board, authorised the late Mr Ross, then Collector in the neighbouring district of Cuddapah, to establish experimental schools with the view of improving the education of the natives; but the lamented death of that zealous and able public officer led to the abandonment of a plan, to which his talents and popularity in the country were peculiarly calculated to give success. As Secretary to the college, and to your Board, I was, at that time, a warm advocate for such experiment; and, if now allowed, I should gladly attempt to superintend some arrangement of that kind, in my present provincial situation.

25. I would propose the appointment of an able *Shastry* from amongst the Law students at the college, with an addition to his existing pay of only 10 pagodas per mensem, to be placed under me at the principal station of the district, to instruct *gratuitously* all who chose to attend him, in the Hindoo sciences in the Sanscrit language, and the native school masters, in the grammar of the Teloogoo and Carnataca tongues, being those vernacular here; such a man I have no doubt that I could soon obtain from the college; for, if one with all the requisite qualifications is not at present attached to the institution, there

are many that I know there who can speedily qualify themselves for it in a very short time.

26. Subordinate to this man and liable to his periodical visitations, I would recommend that seventeen school masters, for Teloogoo and Carnataca, be entertained, at from 7 to 14 rupees each per mensem to be stationed at the seventeen Cusba stations under each of my Amildars, and liable to their supervision, to teach gratuitously these languages. Their lowest pay might be fixed at 7 rupees, and might be raised, by fixed gradations, with the increasing number of their scholars, as high as the maximum above stated. All of these might be selected from the best informed of the present school masters here; but, with reference to the low state of knowledge amongst the present persons of that class, most of them will previously require instruction from the Head *Shastry*, in grammar, etc. Though forbidden to demand money all such masters should be allowed to receive any presents their scholars may offer to them; particularly those usual, on entering or quitting school.

27. The highest expense of such an institution would be 273 rupees, the lowest 154 rupees per mensem. The first expense must necessarily be borne by government, who alone are able to originate, and, at first support, such a plan. But proper steps may be taken to engage in it the aid of the more opulent classes of the community, and if practicable to induce them, in due time, willingly to contribute to the support of such schools. Indeed, I have little doubt that the plan would soon carry with it the united consent, and grateful approbation, of the more respectable and well informed of the inhabitants at large.

28. It would also greatly accelerate the progress and efficiency of such schools, if Government were to appropriate a moderate annual sum, to the purpose of preparing and printing, at the college press, or elsewhere, suitable books for the use of these schools, in the prose, or common, dialects, of the Teloogoo and Carnataca languages; on the principle stated by me in a former part of this letter. These should consist of selections from the most approved native school books, fables, proverbs, etc., now in use in the schools or well known in the country to the exclusion, in the first instance, of all new publications whatever. Books of a popular and known character, intelligible to all who read, would thus be procurable at a cheaper rate, and in more

correct state, than at present, and the teachers might be employed to dispose of them at low prices.

29. If public examinations once a year were instituted before the Head *Shastry*, and small premiums of badges of distinction were distributed, for the purpose of rewarding, on such occasions, those who are most advanced, a suitable effect might be produced, and a powerful stimulus afforded to the students.

30. To cover the first expense of these schools, and to provide further for their gradual extension, if found, advisable, without entailing any additional or new expense on government, it might be provided, that, on the demise of any persons now holding *Yeomiahs* or alienated lands, a new inquiry be instituted; and that, though the same may have been continued for more than one generation by the British Government, it be resumed, and carried to a new fund, to be termed the school 'fund' (to which the proposed expense should also be debited), unless it is clearly stated that the body of the original grant to be *'hereditary'*, on the intention of the ruling power at the time to make such grant hereditary, be clearly proved to the satisfaction of government.

31. If an arrangement of this kind is sanctioned, I have little doubt that, in a few years, the receipts from such a fund would more than counterbalance the disbursement. But even if they did not, the charge would be comparatively trifling. The enactments of the British Parliament contemplate such a charge. The known liberality of the authorities in England on this subject ensure to it sanction: the supreme government have set the example; and, the Provincial functionaries in the Madras territories ought perhaps to take blame to themselves; that they have waited to be called upon, before they stood forth as the organ of public opinion, in a matter of such importance and universal interest; I sincerely hope that it will not, as before, be allowed to sink into oblivion; but that the information submitted by the several Collectors, will enable your Board and the government, to mature, from their suggestions, some practical, or at least some experimental plan for the improvement of education, and the support of learning in Southern India.

Bellary, *A.D. Campbell,*
17th August 1823. *Collector.*

(Statement on following page)

XX

COLLECTOR, RAJAMUNDRY TO BOARD OF REVENUE: 19.9.1823

(TNSA: BRP: Vol.963, Pro.2.10.1823, pp.8520-25 Nos.29-30)

1. I have the honor to submit the information called for in your Deputy Secretary's letter dated 25th July 1822, together with a statement in the prescribed form of the number of native schools in this Collectorate and of the number of scholars.

2. I also take the liberty to forward another statement which being in more detail and containing some additional heads of information may probably be found of some use.

3. If these statements are at all to be depended upon, and (they are founded on very minute returns of my public servants) the actual state of education in this district must be pronounced anything but satisfactory inasmuch as it would appear that out of 1,200 villages composing the zillah of Rajamundry and total population of 7,38,308 souls there are 207 villages only in which reading and writing are taught, the number of schools in the villages in question being 291 and the number of scholars, Hindoos and Mussulman 2,658. The time that scholars usually continue at school varies from 5 to 7 years. The fifth day of the fifth month of the fifth year of the boy's age is the 'lucky day' for his first entrance into school. The monthly charge to the scholars is as high as one rupee each in some places and as low as two annas in others, but the average rate may be stated at 7 annas. I have not found that any of the schools are endowed by the public.

4. The number of colleges, or rather teachers* of Theology, Law, Astronomy, etc., is 279, the number of scholars 1,454. The particulars are as follows (see next page).

The teachers of the Vedum here alluded to are not generally men of much science. The scholar is barely taught so much of the Vedum as will enable him to perform the usual

Table 36

*Ts: Teachers; Ss: Scholars

ceremonies of his religion, nor is it thought at all essential that he should understand what little he does read. Hence it happens that this class of people are often very deficient in their education.

5. Of the total number of 279 teachers mentioned above 69 possess allowances in land and 13 in money both the one and the other being granted by former Zemindars. 196 individuals teach their scholars without fee or reward and 1 person is supported by his scholars.

6. In those villages under my immediate management where there are no schools, I have found the inhabitants very willing to have such established among them, but some assistance from government will be necessary to set things agoing, say monthly allowance of 2 rupees to each teacher, the scholars to make up the remainder. I shall be prepared to address your Board more fully upon the subject should this proposal meet your approval.

Zillah Rajamundry,
Mugaluteer, 19th Sept. 1823.

F.W. Robertson,
Collector.

(Statements on following pages)

NAMES OF THE BOOKS IN USE AT THE SCHOOLS AND COLLEGES AT RAJAMUNDRY

Schools

1. Baula Ramauyanum
2. Rookmeny Culleyanum
3. Paurejantahpatraranum
4. Molly Ramauyanum
5. Raumayanum
6. Dansarady Satacum
7. Kreestna Satacum
8. Soomaty Satacum
9. Janakey Satacum
10. Prasunnaragara Satacum
11. Ramataraka Satacum

12.
Turkum

13. Beesanavecausa Satacum
14. Beemalingaswara Satacum
15. Sooreyanaraina Satacum
16. Narraina Satacum
17. Plaholanda Charetra
18. Vasoo Charetra
19. Manoo Charetra
20. Sumunga Charetra
21. Nala Charetra
22. Vamana Charetra
23. Ganintum
24. Pauvooloory Ganintum
25. Bhauratam
26. Bhaugavatum
27. Vejia Velausum
28. Kroostnaleelan Velausum
29. Rathamathava Velausum
30. Suptama Skundum
31. Astma Skundum
32. Rathamathava Sumvadum
33. Bhaunoomaly Paranayem
34. Veerabhadra Vejayem
35. Leelansoondary Paronayem
36. Amarum
37. Sooranthanaswarum
38. Voodeyagapurvem
39. Audepurvem
40. Gajandra Motchum
41. Andhranamasungraham
42. Coochalopurksyanum
43. Resekajana Manobharanum

Vadahs, etc.

1. Roogvadum
2. Yajoorvadum
3. Samavadum
4. Sroudum
5. Dravedavedum or

. Nunlauyanum

Sastrums

1. Sanscrit Grammar
Siddhanda Cowmoody
Bahscara Satacum 2.

3. Jeyoteshem
4. Durmasastrum

Cauveyems

1. Ragoovamsam
2. Coomarasumbhavem
3. Moghasundasem
4. Bhauravy
5. Maukhum
6. Naveshadum
7. Andasastrum

English Books in its Schools

Persian Schools

1. Caremah
Aumadunnanmah
2. Harckarum in Persian
3. Insah Culipha and
Goolstan
4. Bahurdanish and Bostan
5. Abdul Phazaul Inshah
6. Calipha
7. Khoran

Zillah Rajahmundry,
Mongultoor, 19th September, 1823.

F.W. Robertson,
Collector.

XXI

PRINCIPAL COLLECTOR, MALABAR TO BOARD OF REVENUE:

5.8.1823

(TNSA: BRP: Vol.957, Pro.14.8.1823, pp.6949-55 Nos.52 & 53)

(A) 1. I have the honor to submit a statement showing the number of schools and colleges in this Collectorate, to which I have annexed an Account of the individuals who study Theology, Astronomy, etc., under private tutors.

(B) 2. With respect to the only college entered in the statement now sent, I beg to transmit Translation of a Memorandum received from the Zamorin Rajah, which contains the best information I could collect respecting it.

3. The school masters receive monthly from each scholar from one quarter to four rupees, according to their respective means, independent of some remuneration when a scholar leaves the school. The private teacher who gives lessons in Theology, Law, etc., does not receive any monthly or annual allowance but a present or compensation when the pupils leave him according to the circumstances and means of each.

Principal Collector's Office,
Calicut, 5th August, 1823.

J. Vaughan,
Principal Collector.

(Statement and translation on following pages)

Translation of memorandum received from the Zamorin Rajah:

B. In the beginning the Bramins of Malabar used to be instructed in Religion at the Chetroms (or Temples) nearest to their houses by the teachers of that time, but it was apprehended that learning after that manner would not be attended with advantage. A consultation was therefore held by the Bramins, when it was determined that a College should be instituted for the purposes of instructing all persons in the principles of Religion. A spot of ground (adjacent to the river) to the southward of Teroonavya Chetrom in Terooina: nisherynad Hobby, Cootnad Talook, was fixed upon for the proposed building and all of them waited on and reported the circumstance to our ancestor the then reigning Rajah who caused a College to be built at his expense on the spot pointed out by them, and ordered that all persons residing in it should be furnished with their daily meal and oil, and further, ordered a store house to be built and the appointment of a person to be incharge of the same—the Bramins accordingly, (agreeable to the respective means of each) allotted for this purpose a certain portion of rice lands, and Achipora Erkara Namboory was by general consent, chosen Instructor in the college for whose subsistence some further rice lands were given by the Bramins and from that time the members of that family continue holding the above employment. This is what I have heard my ancestors and the Bramins say. There is no document containing an account of the foregoing transaction. The number of persons to be admitted in the college is not limited; everybody desirous of availing himself of it will be admitted and provided for. Formerly, the number of persons who resorted to the college for instruction amounted from 100 to 120 daily. In the year 949 when a foreigner invaded the country, he caused several temples and dwellings to be destroyed and the above college was demolished on that occasion and the rice lands allotted for the support of it, assessed by his order in consequence of which the Bramins found it impossible to live in this country and therefore all of them repaired to Rama Rajah’s country (Travancore) and consequently the learning of the Vethom was altogether discontinued in Malabar. It being a very great sin for the Bramins to be ignorant of their religious tenets, they and the Namboory who was appointed their Instructor went and represented to Rama Rajah this circumstance when that Rajah ordered a college to be established in his country adjoining to the Teroona Kare Chetrom, and allotted the necessary allowance for the subsistence of the learners, who there continued being instructed without any interruption till the year 966. When the invader was expulsed from Malabar by the Honorable Company who extended their protection throughout the country the emigrant Bramins thereupon returned to this country and resumed their former habitations but the destruction of their college and the decayed state of the landed property allotted for its support precluded them from deriving the benefit of that institution in the manner they formerly did, which was a source of much grievance to them. Accordingly, they represented the circumstance to the Rajah, my uncle. Although according to the then existing state of affairs no great assistance could be given yet he resolved to do to the utmost in his power considering that it was an institution established by his ancestors and that the existence of it would tend to render the Rajah and his subjects prosperous. Accordingly he ordered their college to be rebuilt and furnished it as well with every (thing) necessary as the means of maintaining the Instructor and his pupils, which has been continued by me. The produce of the lands appertaining to the college, after deducting the revenue payable to the Sirkar is hardly sufficient for one month's expense. Consequently, whatever is wanted is supplied by me; about 2,000 rupees for the support of the pupils and 200 rupees for that of the Instructor are paid by me every year. This is what obtains at present. With the exception of Religion no other science is taught in the college. There was in ancient times at Choanoor in Talpallynad a college with lands assigned for its support in which several Bramins were instructed in the Shastram, and when they left the college after acquiring a competent proficiency they were admitted in the Tallel Chetrom at Calicut on an annual allowance of 101 fanams each. The number of individuals thus admitted consisted from 70 to 80. On the introduction of revenue the lands which afforded the above allowance ceased to yield it and the means of the estate became much reduced, in consequence of which the above allowance as well as the instruction was discontinued. On which the Bramins came and represented their grievance whereupon a teacher was entertained here who has always had some pupils under him. The Tallil allowance also is continued but on a reduced scale.

Dated 10th Karkaddayom 998 M.S.

No signature in the original
True Translation

J. Vaughan.

XXII

COLLECTOR, SALEM TO BOARD OF REVENUE:
8.7.1823

(TNSA: BRP: Vol.No.954, Pro.14th Jul. 1823, No.50, pp.5908-10)

1. I have the honor to submit the accompanying statement as called for by your Board in their instructions of the 25th July 1822.

2. From the statement it appears that only 4,650, persons receive education out of a population of above ten lacs—which is only a fraction more than four and a quarter per Mille—and proves the bad and contracted state of public instructions.

3. The period which scholars usually continue at school is from three to five years according to the ability of their friends to maintain them there and their own aptitude to learn—the yearly charge to the scholars is never less than three rupees a year—in the Hindoo schools—and in the Mussulman schools the charge amounts to fifteen and twenty rupees. None of the Hindoo schools are endowed by the public—and only one Mussulman school has land yielding rupees 20 per annum allowed for it's support—a former master of this school possessed a *Yeomiah* paid monthly by the Collector amounting to fifty-six rupees a year—on his death this allowance was discontinued by my Predecessor as it was held only on a life tenure.

4. In the talooks of Abtoor, Namkul, Salem and Parmutty there are twenty teachers of Theology, Law and Astronomy—to the support of whom are attached Enam lands calculated to yield rupees 1,109 per annum. These lands are almost entirely under cultivation—and the possessors perform the duties for which they were originally granted.

5. Besides the above Enam lands there are other lands yielding rupees 384, per annum, in the talooks of Raizepoor and Sankerry-Droog—which were sequestered by Tippoo the year previous to the secession of the country and which have since been included in the Revenue of Government.

6. Considering education as the best means of preventing crimes in the people whether servants of government or

otherwise (and which opinion, is strongly expressed in the 7th Para of your Board's Report to government under date the 11th December 1815), and viewing the defective state of education in this district as the fruitful source of much crime, I shall with the sanction of your Board, be prepared to offer such suggestions and to propose the establishment of such funds—as will tend to promote education in some degree more adequate to the demand for it.

Cutcherry of the Collector of Salem, *M.D. Cockburn,*
8th July, 1823. *Collector.*

(Statement on next page)

XXIII

COLLECTOR, GUNTUR TO BOARD OF REVENUE: 9.7.1823

(TNSA: BRP: Vol.954, Pro.14.7.1823, No.49, pp.5904-7)

1. In reply to your Deputy Secretary Mr Viveash's letter of the 25th July last, I have the honor to transmit a statement showing the number of schools in which reading and writing are taught together with the number of scholars in them, and which has been prepared according to the form accompanying the above letter.

2. With regard to the information called for by the government in their letter of the 2nd July, 1822, I have to observe that the scholars generally assemble in the morning at 6 o'clock and stay until nine and then go to their houses to take their morning meal and return again to school within 11 o'clock and continue until 2 or 3 o'clock in the evening, and again to their respective houses to eat their rice and return by 4 o'clock and continue until 7 o'clock in the evening. The morning and evening generally are the times for reading and afternoon for writing.

3. The charge to the scholars chiefly depends on the circumstances of the fathers or persons who put them to school and is found to vary from 2 annas to 2 rupees per mensem for each boy and this is the only charge that can be shown, as the boys are only sent to the schools in their own villages and live at home.

4. It appears that there are no schools in the zillah which are endowed by the public and no colleges for teaching Theology, Law, Astronomy, etc., in this district; these sciences are privately taught to some scholars or disciples generally by the Bramins learned in them, without payment of any fee or reward, and that the Bramins who teach are generally maintained by means of Mauneom land which have been granted to their ancestors by the ancient Zemindars of this zillah, and by the former governments on different accounts, but there appears no instance in which the Native Governments have granted allowances in money and land merely for the maintenance of the teachers for giving instruction in the above sciences. By the information

which has been got together on this subject, it appears that there are 171 places where Theology, Law and Astronomy, etc., are taught privately, and the number of disciples in them is 939. The readers of these sciences cannot generally get teachers in their respective villages and are therefore obliged to go to others. In which cases if the reader belongs to a family that can afford to support him he gets what is required for his expenses from his home and which is estimated at 3 rupees per month, but which is only sufficient to supply him with his victuals; and if on the other hand his family is in too indigent circumstances to make such allowance, the student procures his daily subsistence from the houses in the village, where taught, which willingly furnish such by turns.

5. Should people be desirous of studying deeper in Theology, etc., than is taught in these parts, they travel to Benares, Navadweepum, etc., where they remain for years to take instructions under the learned Pundits of those places.

Guntoor Zillah, *J.C. Whish,*
Bauputtah, 9th July, 1823. *Collector.*

(Statement on following page)

XXIV

COLLECTOR OF GANJUM TO BOARD OF REVENUE: 27.10.1823

(TNSA: BRP: Vol.967 Pro.6.11.1823 pp.9332-34 Nos.5-6)

1. I have the honor to acknowledge the receipt of Mr Deputy Secretary Viveash's letter and enclosure of the 25th July 1822 and to forward for your Board's information a statement partially showing the number of schools, etc., in this district made out agreeable to the form sent by your Board.

2. There are no schools or colleges in this district endowed by the Circar or by any public authority but the teachers are monthly paid by the scholars from 4 annas to 1 rupee for each man.

3. The schools are usually opened from 6 o'clock in the morning until 5 o'clock in the evening.

4. The Bramins of Agraharums, etc., are in general educated in Sastrums, etc., by their Fathers or Brothers or by any other relations but no schools in this district are publicly opened for such occasion.

5. In making out the enclosed statement I have not been able to procure any satisfactory accounts from most of the Hill Zemindaries. Nothing but vodiahs is taught in these places, a language, merely confined to the mountains and borders.

Chicacole,
27th October 1823.

P.R. Cazalet,
Collector

(Statement on following pages)

XXV

SECRETARY TO GOVERNMENT, BOARD OF REVENUE: 27.1.1825

(TNSA: BRP Vol.1010, Pro.27.1.1825 Nos.7-8 pp.674-675)

1. The government being anxious to receive the information relative to the state of education throughout the country, which was called for by Mr Hill's letter of the 2nd July 1822, I am directed by the Honourable the Governor-in-Council to desire, that the result of the reference made to the several Collectors, under those instructions, may be reported with as little delay as possible.

2. Should any of the Collectors have omitted to furnish the required report, you will direct early attention to the subject, submitting, in the mean time, information which may be already before you.

Fort St. George,
21st January 1825

J. Stokes,
Secretary to Government.

XXVI

SECRETARY, BOARD OF REVENUE, FORT ST. GEORGE, TO COLLECTOR OF CUDDAPAH:

31.1.1825

(TNSA: BRP, Vol.1010 Pro.31.1.1825 No.42, p.841)

1. I am directed by the Board of Revenue to call your immediate attention to my predecessor's letter of the 25th July 1822 requiring a report on the state of education in your district and I am desired to request that you will submit the statement and information required on this subject with the least possible delay.

2. Adverting to the elaborate inquiries made by a former Collector in your district regarding all the points necessary to be reported on, the Board conceive that there will be no difficulty in complying with their orders at an early period.

3. You will be pleased to prepare the statement required strictly according to the Form transmitted with the letter above referred to.

Fort St.George, *J. Dent,*
31st January, 1825 *Secretary.*

XXVII

COLLECTOR, CUDDAPAH TO BOARD OF REVENUE: 11.2.1825

(TNSA: BRP: Vol 1011, Pro.17.2.1825 No.33 pp.1272-6-78)

1. I have the honor to reply to your Secretary's letter of the 31st January calling for the report on the state of education throughout this district and to return the statement filled up according to the required form.

2. There are no public institutions either schools or colleges in this zillah supported by grants of land or any allowances from the government and I do not hear of any establishment having existed of this description.

3. Instruction of every kind is carried on either privately by the pupil residing in the house of his preceptor, or in the schools which are supported in every village by the contribution of those who have children to be instructed. In the latter case the pupils are for the most part in the habit of attending this school at day break, after remaining until about 10 o'clock they return home, and attend school again from ½ past eleven until sunset—the expense varies according to the progress made by the scholar and becomes higher at each stage from reading to writing and arithmetic—the allowance is of course smallest at first and is augmented as the pupil acquires information; the average for the lowest class is about ¼ rupee per month for each scholar and increases as high as 1 and 1½ but rarely exceeds it. I do not find that there are any schools even of this description of the instruction of the sciences. Theology, Law, Astronomy are taught it appears in a private manner for the most part in small families, and given as an inheritance from father to son. The instruction can only be attained by the party applying, either from the strongest interest or from relationship to those Bramins who are qualified to afford it. Pupils under such circumstances appear to reside entirely under the roof of their preceptors and to form part of the family.

4. In Cuddapah there are several schools supported by voluntary contribution, though it can be hardly called a public one as it is confined entirely to the European Gentlemen of the place.

5. Instruction generally commences amongst Bramins when the child had attained the age of 5 or 6 and amongst the Sudras from 6 to 8. This difference is accounted for by a Bramin with reference to the superior intellect of his cast over the Sudra and therefore his children attain the requisite age for receiving instructions much earlier than those of the inferior castes. As instruction amongst the natives here, is encouraged and promoted solely in proportion to the personal profit obtainable by it, the course of education is considered complete when the scholar becomes a proficient in writing and arithmetic. He is then taken from school, all other accomplishments are learned at home, and he arrives at experience, and attains improvement in what he has already acquired, only by attending his father's shop and writing his accounts, or by being permitted to qualify himself for employment by volunteering his services in our public Cutcherries. The period during which each scholar receives instruction at school (and after the expiration of which he is usually considered to have completed his education) is about 2 years.

6. In nearly all the villages of this district there is an Enam set apart, as is doubtless well known to the Board for the support of a Punchangum Bramin, and it might be conjectured that amongst so many there would be found some who had attained considerable perfection in Astronomy and Theology, of this however there is hardly an instance. The persons holding such Enam are quite content to be ignorant of the higher branches of science, their utmost ambition being confined to the distinction of foretelling a fortunate hour for reaping or a lucky day for a marriage, and of contriving a horoscope for persons of distinction in the village.

7. Although there are no schools or colleges supported by public contribution, I ought not to omit that amongst Bramins, instruction, is in many places gratuitously afforded—and the poorer class obtain all their education in this way—at the age of from 10 to 16 years. If he has not the means of obtaining instruction otherwise a young Bramin leaves his home, and proceeds to the residence of a man of his own caste who is willing to afford instruction without recompense to all those resorting to him for the purpose. They do not however derive subsistence from him for as he is generally poor himself, his means could not of course give support to others, and even if he had the means his giving food and clothing to his pupils would attract so many as to defeat the object itself which is professed.

8. The Board would naturally enquire, how these children who are so destitute as not to be able to procure instruction in their own villages, could subsist in those to which they are strangers, and to which they travel from 10 to 100 miles, with no intention of returning for several years. They are supported entirely by charity, daily repeated, not received from the instructor for the reasons above mentioned, but from the inhabitants of the villages generally. They receive some portion of alms daily (for years) at the door of every Bramin in the village, and this is conceded to them with a cheerfulness which considering the object in view must be esteemed as a most honorable trait in the native character, and its unobtrusiveness ought to enhance the value of it. We are undoubtedly indebted to this benevolent custom for the general spread of education amongst a class of persons whose poverty would otherwise be an insurmountable obstacle to advancement in knowledge and it will be easily inferred that it requires only the liberal and fostering care of government to bring it to perfection.

9. As the only schools in the district supported by charity are those which owe their maintenance to the gentlemen at Cuddapah, I have entered them in the list under the name of 'subscription schools'.

10. I am not aware that there is any further matter relating to this subject which is necessary to be submitted to the Board, but I beg to assure them that any deficiency which may be remarked shall be supplied with all the diligence in my power.

11. I cannot conclude this letter without expressing to your Board the obligation I am under to Mr Wheatly for the informant now submitted, his long residence in the district having afforded to him the best opportunity of ascertaining correctly the actual state of education throughout.

Cutcherry of the Collector of
Cuddapah, Roychooty,
11th February, 1825.

G.M. Ogilvie,
Sub-Collector in charge.

(Statement on following pages)

XXVIII

COLLECTOR, MADRAS TO BOARD OF REVENUE:
12.2.1825

(TNSA: BRP: Vol 1011, Pro.14.2.1825 No.46 pp.1193-94)

With reference to my letter of the 13th November 1822 I have the honor to forward another statement of schools, which I consider to be more correct, and to submit that it may be substituted for the one transmitted with the letter to which I have before referred.

Madras Cutcherry, *L.G.K. Murray,*
12th February 1825. *Collector.*

(Statement on following page)

XXIX

BOARD OF REVENUE TO CHIEF SECRETARY TO GOVERNMENT:

21.2.1825

(TNSA: BRP: Vol.1011, No.46 Pro.21.2.1825 pp.1412-26)

1. With reference to the instruction of government conveyed in a letter from the Secretary to government in the Revenue Department under date the 2nd July 1822 and to Mr Secretary Stoke's letter of the 21st ultimo, I am directed by the Board of Revenue to submit for the information of the Honorable the Governor-in-Council the correspondence noted in the margin regarding the actual state of education in the Provinces under this government.

Circular to all Collectors dated 25th July 1822

From the Collector of Ganjam dated 27 October in consultations: 6th November 1823.

From the Collector of Vizagapatam 14th April in consultations: 1st May 1823

From the Collector of Rajahmundry 19th September in consultations: 2nd October 1823

From the Collector of Masulipatam 3rd September in consultations: 13th January 1823

From the Collector of Guntoor 9th September in consultations: 14th July 1823

From the Collector of Nellore 23rd June in consultations: 30th June 1823

From the Collector of Bellary 17th June in consultations: 25th August 1823

From the Collector of Cuddapah 11th June in consultations: 17th February 1825

From the Collector of Chingleput 3rd June in consultations: 7th April 1823

From the Principal Collector in the Northern Division of Arcot 3rd June in consultations: 10th March 1823.

From the Principal Collector in Southern Division of Arcot 29th June in consultations: 7th July 1823

From the Collector of Salem 8th June in consultations: 14th July 1823

From the Principal Collector of Tanjore 28th June in consultations: 3rd July 1823

From the Collector of Trichinopoly 23rd June in consultations: 28th August 1823

From the Collector of Madura 5th February in consultations: 13th February 1823

From the Collector of Tinnevelly 18th October in consultations: 28th October 1822 & 7th November in consultations: 18th November 1822

From the Principal Collector of Coimbatore 23rd November in consultations: 2nd December 1822

From the Principal Collector of Malabar 5th August in consultations: 14th August 1823

From the Principal Collector of Canara 27th August in consultations: 5th September 1822

From the Assistant Collector of Seringapatam 29th October in consultation: 4th November 1822

From the Collector of Madras 13th October in consultations: 14th November 1822 & 12th October in consultations: 14th February 1825

2. An abstract statement prepared from the reports of the several Collectors' is also submitted for the purpose of exhibiting at one view the information required by the government.

3. This abstract is in the Form transmitted by government, with an additional column showing the amount of population in each district according to the Census as some of the Collectors have stated the numbers differently. Under the head of remarks the information required by the government regarding the time

which scholars usually continue at school, the monthly or yearly charge to the scholars and other particulars is concisely stated.

4. It will be observed that the schools now existing in the country are for the most part supported by the payments of the people who send their children to them for instruction. The rate of payment for each scholar varies in different districts and according to the different circumstance of the parents of the pupils, from 1 anna to 4 rupees per mensem, the ordinary rate among the poorer classes appears to be generally about 4 annas, and seldom to exceed ½ rupee.

5. In a few districts only there are endowments for the support of schools and colleges. In Rajahmundry 69 teachers of Sciences possess endowments in land, and 13 allowances in money granted by former Zemindars. In Nellore certain individuals, Bramins and Mussulmans, are in possession of allowances in land and money granted by the Carnatic Government for teaching the Vedas, etc., and Arabic and Persian respectively to the amount of rupees 1,467 per annum.

In the Northern Division of Arcot, 28 colleges are supported by mauniums and Marahs granted by former governments yielding rupees 516 per annum, and 6 Persian schools are maintained at the public expense at an annual charge of rupees 1,861. In Salem Enam lands estimated to yield rupees 1,109 per annum are appropriated to the support of 20 teachers of Theology, etc., and one Mussulman school has land allowed for its support yielding annually 20 rupees. In Tanjore 44 schools and 71 colleges are supported by His Highness the Rajah—There is no school, or college, endowed particularly by the Circar but there are free schools maintained by the Mission established in Tanjore which possess a Survamanniam, the annual value whereof is estimated at 1,100 rupees. In the District of Trichinopoly there are 7 schools which possess endowments in land to the extent of 46 cawnies supported by the Zamorin Rajah which has also some land attached granted by former governments. In Malabar there is one college to it.

6. It does not appear from the Reports of the Collectors that any public endowments for the advancement of learning have been diverted from their original purpose or resumed except in Salem and Coimbatore. The Collector of Salem says that lands yielding rupees 384 formerly devoted to this object were sequestered before the acquisition of the country by the British

Government and their produce has since been included in the revenue of government. The Principal Collector of Coimbatore reports that Mauniums, etc., granted in former times for the support of colleges to the value of rupees 2,208 have been resumed either by the Mussulman or the British Government.

7. The late Collector of Bellary having stated in his report that none of the institutions for education at present existing in that district derive support from the state added 'there is no doubt that in former times especially under the Hindoo Government very large grants both in money and in land were issued for the support of learning', and further stated his opinion that many of the *Yeomiahs* and *Shrotriums* now held by Bramins in the district may be traced to this source. No conditions he observed 'are stated in the grants issued by the former governments; they all purport to flow from the free bounty of the ruling power merely to aid the maintenance of some holy or learned man. But they were almost universally granted to learned or religious persons, who maintained schools for one or more of the Sciences and taught therein gratuitously; and though not expressed in the deed itself the duty of continuing such gratuitous instruction was certainly implied in all such grants.' It does not appear upon what grounds Mr Campbell founded his opinion so confidently that the implied condition of the grants referred to was the continuance of gratuitous instruction; but it seems not to be the result of particular investigation. Mr Campbell further suggested with the view of covering the expense of a general arrangement proposed by him in this report for the improvement of education that it might be provided that 'on the demise—of any persons now holding *Yeomiahs* or alienated lands a new enquiry be instituted and that though the same may have been continued for more than one generation by the British Government it may be resumed and carried to a new fund to be termed, "the school fund", unless it is clearly stated in the body of the original grant to be hereditary, or the intention of the ruling power at the time to make such grant hereditary be clearly proved to the satisfaction of government.' The Board have little doubt that the resumption of lands now alienated, in the manner suggested by Mr Campbell would produce ample funds for the purpose contemplated but they conceive that the two objects in view, namely, the recovery of alienated lands, and the establishment of a fund for the support of schools should be kept entirely distinct and separate. The establishment of schools in every part of the country under any general plan should be regulated

by the wants of the people in the respect to education and should not in any degree depend upon the accidental circumstance of the amount of a particular fund being great or less in different situations.

8. The Board think it proper to offer this remark in regard to the suggestion of Mr Campbell which has just been noticed, but it appears to them to be unnecessary at this time to discuss the plan proposed by him for the improvement of education and his general speculations on the subject conceiving it to be the desire of government at present only to receive information regarding the actual state of education in order that it may be seen what are the deficiencies to be supplied.

9. That these deficiencies are lamentably great is shown in every one of the reports now submitted, and the general result of the whole from which it appears that out of a population estimated by the Census at above 12 million and a half only about 1,88,000 are receiving instruction or about 13¾ percent is most unsatisfactory.

10. It will be remarked that no statement is submitted of the number of schools, etc., in Canara. The late Principal Collector reported that education is conducted in that district so much in private that any statement of the number of schools and of the scholars attending them would be of little or no use, but on the contrary rather fallacious in forming an estimate of the proportion of the population receiving instruction. He stated generally that there are no colleges in Canara for the cultivation of 'abstract Science, neither are there any fixed schools and masters to teach in them. There is no instance known of any institution of the above descriptions having even received support in any shape from the former government.'

11. Notwithstanding the observations of Mr Harris the Board have thought it proper to call again upon the present Principal Collector to furnish a Statement of Schools, etc., prepared in the form transmitted by government which shall be submitted to the Hon'ble the Governor-in-Council as soon as it is received.

Fort St. George, *J. Dent,*
21st February, 1825. *Secretary.*

(Statement on following pages)

REMARKS

Ganjam:

There are no schools or colleges in this district endowed by the Circar. The teachers in the schools are paid monthly by the scholars at various rates from 4 annas to 1 rupee each. The Shastras, etc., are usually taught privately to Bramins. The statement is not complete in respect to the Hill Zemindaries from which satisfactory accounts could not be procured.

Vizagapatam:

It does not appear that there are any colleges in this district. The schools are not endowed by the public; 2 only are stated to receive a payment from the Zemindar of Chamoodoo at the rate of 50 rupees annually. The teachers are paid at various rates from one anna to 1 rupee for each scholar per mensem. Private teachers in families of respectability are paid a monthly or yearly stipend according to their acquirement and the rank and opulence of their employer.

Rajahmundry:

Some of the schools in this district are endowed by the public. The teachers are paid by the scholars at rates varying from 1 rupee to 2 annas, 7 annas being the average rate per mensem. The scholars are entered at school in their fifth year and continue at their studies from 5 to 7 years. The number of professors or teachers of the Sciences is 279; of these 69 possess allowances in land and 13 in money granted by former Zemindars; 196 teach their scholars without fee or reward and only one is supported by his scholars. In the villages in which no schools at present exist the inhabitants are desirous of having them established. It might be done with a small contribution from government to the pay of the teachers. The Collector considered 2 rupees a month to each to be sufficient.

Masulipatam:

None of the institutions for the purpose of education in this district appear to have been regularly endowed. One Charity School only is supported at Ellore by the Zemindar by the payment of a monthly stipend of 3 pagodas to the teacher. The scholars usually enter in the schools in their 5th year and continue in them until they are from 12 to 16 years of age. The greater proportion are then employed on public or private business, the Vedika Bramins only being removed from schools to college for the purpose of being instructed in Theology and other Sciences. The charges on account of a boy at school are about the average of 6 annas for paper, cadjan, etc., and from 4 annas to 2 rupees to the school master monthly. The Sciences are taught in the colleges generally gratis by Bramins holding Mauniums, etc. Some teachers, however, are supported by contributions from their scholars but receive no fixed allowance. The average charge to a scholar at college for his subsistence, books, etc., is 60 rupees per annum. In most parts of the country instruction in the Vedas, etc., is also given by the Bramins privately. The schools in which the Persian language is taught are few. Mussulman scholars remain at school from 6 years of age to 15, the pay of the teachers is from ¼ to 1 rupee and the other charges of the scholars are estimated at 4 annas a month; some learned Mussulmans give instruction gratis.

Guntoor:

There are no schools in this district endowed by the public and no colleges for instruction in the Sciences. The Sciences are taught privately by learned Bramins without any remuneration. These Bramins generally hold mauniums, etc., granted by the ancient Zemindars and by the former governments for various reasons, but there is no instance of any grant in money or land, specially for the purpose of maintaining teachers of the Sciences. The charge for the education of a boy at school varies from 2 annas to 2 rupees monthly. Three rupees a month is requisite for the subsistence of a scholar while he is studying the Sciences.

Nellore:

This statement gives the number of schools in the district not endowed by the public. There are besides 26 individuals who have scholars as shown by a separate statement B viz. 15 Bramins, and 11 Mussulmans who are in possession of allowances in money and land granted by the Carnatic Government for teaching the Vedas, etc., and Arabic and Persian respectively to the amount of rupees 1,467 per annum. Boys are generally sent to school at 5 years of age where they are said to remain from 3 to 6 years. The school master receives from 2 annas to 4 rupees monthly for each scholar. The scholar has also to pay about one rupee for writing materials, etc., and his subsistence is estimated at 3 rupees a month. Besides his fixed allowance occasional presents are made by the scholars to their teacher.

The schools are not all of permanent continuance—some depend upon circumstances, schools being some times established by the joint subscriptions of several families especially for the education of their own children which being accomplished they are discontinued. The difference between the amount of population in this statement and in the report of the Census is accounted for by the population of the Zemindaries being included in the former and not in the latter.

Bellary:

None of the schools in this district at present derive support from the state. There appear to be no regular colleges but in 23 cases of instruction attended by Bramins exclusively some of the Sciences, etc., are taught imperfectly in the Sanscrit language. In the schools some children continue only 5 years, while others whose parents are opulent not infrequently remain as long as fourteen and fifteen years. It appears that the teacher is paid at various rates according to the class to which the scholar may belong—while learning the first rudiments it is common for the scholar to pay a quarter of a rupee and when arrived so far as to write on paper or at the higher branches of Arithmetic half a rupee per mensem. But on proceeding further such demands are made as exceed the means of most parents. Their children are therefore left only partially instructed—and there are multitudes who cannot avail themselves even of this imperfect education for their children. The diffusion of common instruction is said to be less extensive than it was formerly. In many villages where formerly there were schools, there are now none, and in many others where there were large schools, now only a few of the children of the most opulent are taught, others being unable from poverty to attend or to pay what is demanded. Instructions in the Sciences is given gratuitously as of old, by a few learned Bramins to their disciples.

Cuddapah:

There are in this District no public institutions for education supported by grants of land or allowances from the government, nor are any known to have existed. The schools which exist are supported by the parents of the scholars. The charge for instruction is variable rising as the scholar is promoted from the lowest to the higher classes. The average for the lowest class is about ¼ rupee per mensem, and increases to 1 rupee and 1½ rupee which rate it rarely exceeds. In the Bramin caste, boys are put to school at the age of 5 or 6 and among the Sudras at from

6 to 8. Boys are said to be kept at school generally no longer than 2 years in which time they are expected to have attained all that they are desired to acquire, that is a certain degree of knowledge of reading, writing and arithmetic in which they are afterwards to improve themselves by practice at home, in a shop, or in a public office. The only schools which can be denominated public in this district are the charity schools at Cuddapah, supported by the European gentlemen of the place. There are no schools or colleges for instruction in the Sciences. Theology, Law and Astronomy are taught privately, the pupils residing in the houses of their preceptors. Besides the instruction afforded in the schools to those whose parents are able to pay for it, it is also given gratuitously in many places by Bramins to those of their own caste who have no other means of obtaining it—young Bramins for the sake of receiving instruction in this way, leave their homes and wait upon the preceptor in his own village, where they are supported by the daily charity of the Bramins residing in it.

Chingleput:

There are no colleges properly so called in this district but there are a few places in which the higher branches of learning are taught to a small number of pupils—a village school master earns from 3½ to 12 rupees per month—the average is not more than 7 rupees. It does not appear that any allowance was made by the Native Governments for the promotion of education but in some villages there are trifling mauniums from a quarter of a Cawny to 2 Cawnies of land for Theological teachers.

N.D. Arcot:

Of the 69 colleges in this district it appears by a separate statement No.2 submitted by the Principal Collector that 43 are for Theology, 24 for Law, etc., and 2 for Astronomy; 28 of these colleges are supported by mauniums and marahs granted by former governments yielding rupees 516 per annum—The allowance to each teacher for the lower class is rupees 3-8- per annum and for the higher class rupees 36-12-. Of the rest the greater number are free of charge and a few are supported by trifling contributions from the scholars. The period of attendance at the colleges is from 8 to 12 years. Of the Hindoo schools only 3 are free of charge. The rest are supported by payments from the scholars varying from 1 anna 3 pice per mensem to 1 rupee 12 annas. Of the Persian schools 6 are maintained at the public expense at a yearly charge of rupees 1,361. The greater proportion are supported by the scholars who pay from 2 annas 6 pice to 2 rupees a month to their teachers. In the Hindoo schools the scholars continue 5 or 6 years, in the Mussulman schools 7 or 8 years. Of the 7 English schools 3 are free of charge and in the others the scholars pay monthly from 10 annas to 3 rupees 8 annas. It appears that this statement does not include the Zemindaries and Pollams which form a large portion of the district their population being estimated at nearly 3 lacs.

S.D. Arcot:

No allowance was ever granted by the Native Governments for the support of schools in this district. There are no public or private institutions for teaching Theology, Law, Astronomy, etc. The schools are supported entirely by the scholars who pay from 1 fanam to 1 pagoda monthly.

Salem:

None of the Hindoo schools in this district are endowed by the public and only one Mussulman school has land allowed for its support yielding 20 rupees per annum; a *Yeomiah* was enjoyed by a former master of this school amounting to 56 rupees a year. On his death it was discontinued having been on a tenure for life. The period of attendance at school is from 3 to 5 years. The yearly charge for each scholar is never less than 3 rupees a year in the Hindoo schools and from 15 to 20 rupees in the Mussulman schools. Enam lands estimated to yield rupees 1,109 per annum are appropriated to the support of 20 teachers of Theology, Law and Astronomy, and the present possessors perform the duties; other lands yielding rupees 384 per annum were formerly devoted to the same object, but were sequestered before the acquisition of the country by the British Government and the produce of them has since been included in the revenues of government.

Tanjore:

Of the schools in this district 44 are free schools. The rest are supported by payments from the scholars at the rate of 4 D fanams monthly for each—19 of the free schools belong to the Missions and it is believed that there are more not included in the Report. In 21 the masters are paid by the Rajah and in 1 by the Trevalore Pagoda, in the remaining 23 the masters teach gratuitously. There are none individually endowed by the Circar, but for the general support of the Mission at Tanjore—there is a Survamaunium of one village the annual value of which is estimated at 1,100 rupees. The scholars are usually kept at school about 5 years. Of the colleges in number 109 there are 99 in which instruction is given free of charge, of these 71 are supported by the Rajah in the town of Tanjore and villages belonging to his Highness; in 16 the masters teach gratuitously, 1 only is endowed with a maunium, 7 are supported by a Pagoda, 3 by private donations and 1 by village contribution. In the remaining 10 colleges the masters are paid by their scholars. These colleges are for Bramins only. The Hindoo Sciences are taught in them. The population of those villages only in which there are schools is shown in this statement, not the general population of the district.

Trichinopoly:

There are no schools or colleges in this district for the support of which any public funds are appropriated and no institution for teaching Astronomy, Theology or any other Sciences. In the talook of Jyalore alone there are 7 schools which were formerly endowed by the Native Government with between 46 and 47 Cawnies of land for the maintenance of the teachers. The scholars generally continue at school from the age of 7 to 15. The average yearly expense of education is about 7 pagodas.

Madura:

It does not appear that any mauniam lands in this district are assigned for the support of schools. The teachers are paid by the poorer class of people from ½ fanam to 1 fanam for each scholar monthly and from 2 to 3 and 5 fanams by those in better circumstances—a teacher receives in this manner from 30 to 60 Cully fanams or from 2 to 3¾ pagodas a month in large villages and from 10 to 30 fanams in small villages. Scholars usually enter school at the age of 5 and leave it at from 12 to 15. There are no colleges in this district. In Agraharam villages a small portion of maunium land is usually allotted to those Bramins who study the Vedas and they gratuitously instruct such pupils as come to them.

Tinnevelly:

There appear to be no colleges in Tinnevelly.

Coimbatore:

The schools in this district appear to be supported entirely by the people who send their children to them for instruction.

The annual payment for each scholar varies from 14 rupees to 3 rupees per annum, according to the circumstances of the parents. The masters besides their regular stipends occasionally receive presents from the parents of their pupils; they have also small fees on particular occasions. The earliest age at which boys attend school is 5 years; they continue there until they are 13 or 14. Those who study Theology, Law, etc., enter the colleges at about 15 and continue to frequent them until they have attained a competent knowledge of the Sciences or until they obtain employment, a statement is given of mauniums, etc., granted in former times for the support of colleges, but now resumed to the value of Rs. 2,208-7-.

Canara:

No statement.

Malabar:

In Malabar there is only one regular college for instruction in the Sciences, but these are taught privately. The private teachers are not paid a fixed stipend but presents are made to them by their pupils when their education is completed. The school masters receive monthly from each scholar from ¼ rupee to 4 rupees independent of some remuneration when the scholar leaves school. The only college which exists in this district was established and is now supported by the Zamorin Rajah who allows about 2,000 rupees annually for the maintenance of the pupils and 200 rupees to the Instructor; some land also appertains to it—a history of this college, furnished by the Zamorin Rajah is submitted.

Seringapatam:

It is stated that there are no traces on records of endowments in lands towards the support of colleges and schools on the island of Seringapatam, having been granted by any former government or private individual. The teachers in the schools are supported by their scholars. The average monthly charge for each scholar is 5 annas and the average annual income of the masters from this source is about 57 rupees.

Madras:

In this statement two descriptions of schools are included, native schools for the education of Hindoo and Mussulman children respectively, and charity schools in which the scholars are of various religions and castes indifferently. The children in the native schools are generally sent to them at the age of 5 years, the term of their continuance there depends upon circumstances, but it is stated that they generally acquire a competent knowledge of the various branches of learning taught to them before they attain their thirteenth year. The Collector states that there are no schools endowed by the public, excepting the charity schools. The payments to a teacher seldom exceed 12 pagodas per annum for each scholar. The Sciences are in some instances taught gratuitously to the children of the poorer class of Bramins and sometimes an allowance is made to the teachers. It will be observed that the estimate of the population of Madras in this statement is greatly too high, and there is reason to suppose that the proportion receiving instruction and the number of schools are stated too low.

XXX

MINUTE OF SIR THOMAS MUNRO, MARCH 10, 1826

(*Fort St. George, Revenue Consultations*)
10 March 1826

1. The Board of Revenue were directed by government, on the 2nd July 1822, to ascertain the number of schools and the state of education among the natives in the provinces, and with their letter of the 21st February last, they transmitted the reports on this subject which they had received from the several Collectors. From these reports it appears that the number of schools, and of what are called colleges, in the territories under this presidency, amount to 12,498, and the population to 12,850,941; so that there is one school to every 1,000 of the population; but as only a very few females are taught in schools, we may reckon one school to every 500 of the population.

2. It is remarked by the Board of Revenue, that of a population of 12½ millions, there are only 188,000, or 1 in 67 receiving education. This is true of the whole population, but not as regards the male part of it, of which the proportion educated is much greater than is here estimated: for if we take the whole population as stated in the report at 12,850,000, and deduct one half for females, the remaining male population will be 6,425,000; and if we reckon the male population between the ages of five and ten years, which is the period which boys in general remain at school, at one-ninth, it will give 713,000, which is the number of boys that would be at school if all the males above ten years of age were educated; but the number actually attending the schools is only 184,110, or little more than one-fourth of that number. I have taken the interval between five and ten years of age as the term of education, because, though many boys continue at school till twelve or fourteen, many leave it under ten. I am, however, inclined to estimate the portion of the male population who receive school education to be nearer to one-third than one-fourth of the whole, because we have no returns from the provinces of the numbers taught at home. In Madras that number taught at home is 26,963, or about five times greater than that taught in the schools. There is probably some error in this number, and though the number privately taught in the provinces does certainly not approach this rate, it is no doubt considerable, because the practice of boys being taught at home by their relations or private teachers is not

infrequent in any part of the country. The proportion educated is very different in different classes; in some it is nearly the whole; in others it is hardly one-tenth.

3. The state of education here exhibited, low as it is compared with that of our own country, is higher than it was in most European countries at no very distant period. It has, no doubt been better in earlier times; but for the last century it does not appear to have undergone any other change than what arose from the number of schools diminishing in one place and increasing in another, in consequence of the shifting of the population, from war and other causes. The great number of schools has been supposed to contribute to the keeping of education in a low state, because it does not give a sufficient number of scholars to secure the service of able teachers. The monthly rate paid by each scholar is from four to six or eight annas. Teachers in general do not earn more than six or seven rupees monthly, which is not an allowance sufficient to induce men properly qualified to follow the profession. It may also be said that the general ignorance of the teachers themselves is one cause why none of them draw together a large body of scholars; but the main causes of the low state of education are the little encouragement which it receives, from there being but little demand for it, and the poverty of the people.

4. These difficulties may be gradually surmounted; the hindrance which is given to education by the poverty of the people may in a great degree be removed by the endowment of schools throughout the country by government, and the want of encouragement will be remedied by good education being rendered more easy and general, and by the preference which will naturally be given to well-educated men in all public offices. No progress, however, can be made without a body of better instructed teachers than we have at present; but such a body cannot be had without an income sufficient to afford a comfortable livelihood to each individual belonging to it; a moderate allowance should therefore be secured to them by government, sufficient to place them above want; the rest should be derived from their own industry. If they are superior both in knowledge and diligence to the common village school masters, scholars will flock to them and augment their income.

5. What is first wanted, therefore, is a school for educating teachers, as proposed by the committee of the Madras School-Book Society, in the letter of the 25th October 1824, which accompanied their second report. I think that they should be authorised to draw 700 rupees monthly from the treasury for

the purposes which they have stated; namely, for the payment of the interest of money employed in building, and the salaries of teachers, 500; and for the expenses of the press, 200. I would next propose that government should establish, in each Collectorate, two principal schools, one for Hindoos and the other for Mahomedans; and that hereafter, as teachers can be found the Hindoo schools might be augmented so as to give one to each tehsildary, or about 15 to each Collectorate. We ought to extend to our Mahomedan the same advantages of education as to our Hindoo subjects, and perhaps even in a greater degree, because a greater proportion of them belong to the middle and higher classes. But as their number is not more than one-twentieth of that of the Hindoos, it will not be necessary to give more than one Mahomedan school to each Collectorate, except in Arcot, and a few other Collectorates, where the Mahomedan population is considerably above the usual standard.

6. We have 20 Collectorates; the number of tehsildaries is liable to change: but it will be sufficient for the present purpose to estimate them at 15 on an average to each Collectorate, or 300 in all. This would, according to the plan proposed give about 40 collectorate and 300 tehsildary schools. The monthly salaries of the teachers of the collectorate schools might, on an average, be 15 rupees to each, and those of the tehsildary nine rupees each. These allowances may appear small, but the tehsiladry school master who receives nine rupees monthly from government, will get at least as much more from his scholars, and, considering all circumstances, his situation will probably be better than that of a parish school master in Scotland.

7. The total expense of the schools will be as follows:

Madras School-Book Society per month	Rs. 700
Collectorate Schools, Mahomedan, 20 at 15 rupees	Rs. 300
Collectorate Schools, Hindoo, 20 at 15 rupees	Rs. 300
Tehsildary Schools, 300 at 9 rupees	Rs. 2,700
Per month	Rs. 4,000
Per annum	Rs.48,000

This expense will be incurred only be degrees, because it will be long before a sufficient number of qualified teachers can be obtained. The charges for the Madras School-Book Society and the collectorate schools, are all that will probably be wanted before the sanction of the Honorable Court can be received. The sum for which we ought to request their sanction ought not to be less than half a lakh of rupees. None of the endowments in the Collectors' reports are applicable to the present object; they do not exceed 20,000 rupees in all, and only a small portion of them are public grants, and this small portion belongs chiefly to the teachers of Theology, Law and Astronomy. Whatever expense government may incur in the education of the people, will be amply repaid by the improvement of the country; for the general diffusion of knowledge is inseparably followed by more orderly habits, by increasing industry, by a taste for the comforts of life, by exertion to acquire them, and by the growing prosperity of the people.

8. It will be advisable to appoint a Committee of Public Instruction, in order to superintend the establishing of the public schools; to fix on the places most proper for them, and the books to be used in them; to ascertain in what manner the instruction of the natives may be best promoted, and to report to government the result of their inquiries on this important subject.

9. We must not be too sanguine in expecting any sudden benefit from the labours of the School-Book Society. Their disposition to promote the instruction of the people by educating teachers, will not extend it to more individuals than now attend the schools; it can be extended only by means of an increased demand for it, and this must arise chiefly from its being found to facilitate the acquisition of wealth or rank, and from the improvement in the condition of the people rendering a larger portion of them more able to pay for it. But though they cannot educate those who do not seek or cannot pay for education, they can, by an improved system give a better education to those who do receive it; and by creating and encouraging a taste for knowledge, they will indirectly contribute to extend it. If we resolve to educate the people, if we persevere in our design, and if we do not limit the schools to tehsildaries, but increase their number so as to allow them for smaller districts, I am confident that success will ultimately attend our endeavours. But, at the same time, I entirely concur in the opinion expressed in the 5th Report of the Calcutta School-Book Society, when speaking of the progress of the system, that 'its operation must therefore of necessity be slow; years must elapse before the rising generation will exhibit any visible improvement.'

(Signed)
Thomas Munro.

Annexure B

FRA PAOLINO DA BARTOLOMEO ON EDUCATION OF CHILDREN IN INDIA

(Born at Hos, Austria, 1748, as John Phillip Wesdin; in
India 1776 to 1789. From *Voyages to the East Indies*
(Published, Rome, 1796, Berlin, 1798, England, 1880),
Book II: Birth and Education of Children (pp.253-268))

All the Grecian historians represent the Indians as people of greater size, and much more robust than those of other nations. Though this is not true in general, it is certain that the purity of the air, wholesome nourishment, temperance and education contribute, in an uncommon degree, to the bodily conformation, and to the increase of these people. Their new-born children lie always on the ground, as if they were thrown away or neglected; and they are never wrapped up with bandages, or confined in any other manner, as is done in Europe. Their limbs, therefore, can expand themselves without the least restraint; their nerves and bones become more solid; and when these children attain the period of youth, they acquire not only a beautiful figure, but a sound, well turned, and robust bodily conformation. The frequent use of the cold bath, repeated rubbing the body with coconut oil and the juice of the *Ingia plant*, as well as their exercises, which have a great resemblance to the *Juvenilia*, and which I have often seen in Malabar, all contribute to increase their strength and agility. These advantages also are seldom lost, unless some of these young people abandon themselves to debauchery, or weaken their bodies by too great labour or excessive perspiration. However healthful and lively the young Indians may be in general those who marry before the twentieth year of their age, for the most part, soon become feeble and enervated. In a word, I seldom saw in India a person either lame, crooked, or otherwise deformed. The people of Malabar, who live towards the west, are much handsomer and more robust than the natives of Coromandel, or the Tamulians on the eastern coast of India.

The education of youth in India is much simpler, and not near so expensive as in Europe. The children assemble half naked under the shade of a coconut tree; place themselves in rows on the ground, and trace out on the sand, with the fore finger of the right hand, the elements of their alphabet, and then smooth it with the left when they wish to trace out other characters. The writing master, called *Agian*, or *Eluttacien*, who stations himself opposite to his pupils, examines what they have done; points out their faults, and shows them how to correct them. At first, he attends them standing; but when the young people have acquired some readiness in writing, he places himself cross-legged on a tiger's or deer's skin, or even on a mat made of the leaves of the coconut-tree, or wild ananas, which is called *Kaida**, plaited together. This method of teaching writing was introduced into India two hundred years before the birth of Christ, according to the testimony of Magasthenes, and still continues to be practised. No people, perhaps, on earth have adhered so much to their ancient usages and customs as the Indians.

A schoolmaster in Malabar receives every two months, from each of his pupils, for the instruction given them, two *Fanon* or *Panam*. Some do not pay in money, but give him a certain quantity of rice, so that this expense becomes very easy to the parents. There are some teachers who instruct children without any fee, and are paid by the overseers of the temple, or by the chief of the caste. When the pupils have made tolerable progress in writing, they are admitted into certain schools, called *Eutupalli*, where they begin to write on palm leaves (*Pana*), which, when several of them are stitched together, and fastened between two boards, form a *Grantha*, that is, an Indian book. If such a book be written upon with an iron style, it is called *Granthavari*, or *Lakya*, that is, writing, to distinguish it from *Alakya*, which is something not written.

When the Guru, or teacher, enters the school, he is always received with the utmost reverence and respect. His pupils must throw themselves down at full length before him; place their right hand on their mouth, and not venture to speak a single word until he gives them express permission. Those who talk and prate contrary to the prohibition of their master are expelled from the school, as boys who cannot restrain their tongue, and who are consequently unfit for the study of philosophy. By these means the preceptor always receives that respect which is due to him: the pupils are obedient, and seldom offend against rules which are so carefully inculcated. The chief branches taught by the Guru are: 1st, the principles of writing and accounts: 2nd, the Samscred grammar, which contains the declensions and conjugations; in Malabar it is called *Sidharuba*; but, in Bengal *Sarasvada*, or the art of speaking with elegance: 3rd, the second part of this grammar, which contains the syntax, or the book *Vyagarna*: 4th, the *Amarasinha*, or Brahmanic dictionary. This work, which is highly esteemed by the Brahmans, does not consist, as Anquetil du Perron says, of three, but of four parts; and contains everything that relates to the gods, the sciences, colours and sounds, the earth, seas and rivers, men and animals, as well as to the arts and all kinds of employment in India. To render the construction of the Samscred language, and its emphatic mode of expression, more familiar to their pupils, the *Guru* employs various short sentences clothed in Samscred verse, which are called *Shloga*. These verses serve not only as examples of the manner in which the words must be combined with each other, but contain, at the same time, most excellent moral maxims, which are thus imprinted in the minds of the young people as if in play; so that, while learning the language, they are taught rules proper for forming their character, and directing their future conduct in life. That the reader may be better enabled to conceive some idea of the morality of the Brahmans, I shall here subjoin a specimen of these sentences.

I. What is the use of study, if the object of it be not to learn knowledge and fear, which is true wisdom?

II. Why have we ceased living in the forests, and associated ourselves in cities and towns, if the object of our doing so be not to enjoy friendship; to do good mutually to each other, and to receive in our habitations the stranger and wanderer?

III. The wounds occasioned by a slanderous tongue occasion far more pain, and are much more difficult to be healed, than those which proceed from fire and the sword.

IV. Of what use is it to thee to shut the door of thy house? It is necessary in order that thy wife may learn to be upon her guard.

V. He who revenges an injury enjoys a pleasure which endures only a day; but he who forgives receives a satisfaction which will accompany him through life.

VI. Modesty becomes every one, but is a particular ornament to the learned and rich.

VII. The state of a married pair, who never deviate from the path of honour, virtue, and mutual duty, is as difficult as that of those who impose on themselves the several penances.

In the gardens, or sacred enclosures, in which children are taught, the *Lingam*, or Priapus, represented under the form of a cylinder, is generally found. It is, however, not worshipped by all the Indians, but only by the *Shivanites*. These are a particular sect, who pay divine honour to Fire, under the form of the god Shiva, as the principle or creative power by which everything was produced. Besides the above idol, there are two other statues, which, for the most part, are placed before the entrance of the school. One of them represents *Ganesha*, the protector of the sciences, and of learned men; and the other the goddess *Sarasvadi*, the goddess of eloquence and history. Every student, as he enters the school, always directs his eyes to these two idols; raises his hands to his head, and shows his respect for them by repeating certain forms of prayer. That with which he salutes *Ganesha* is commonly in the following words: *Sal Guruve nama*: Adoration to thee, thou true master. Or, *Ganabadaye name*: Adoration to thee, O Ganabadi. This is real idolatry; but these practices at any rate prove that the Indians accustom their children early to honour the gods, and to consider them as their protectors and benefactors. "Those who are desirous of knowing the power of religion, and the influence of religious opinions," said the Marquis of Kergariou, who commanded the Calypso frigate, "need only go to India". This observation is indeed just; for among 2000 Indians you will scarcely find one who is not convinced of the necessity of supplicating the gods. Education, and the nature of the climate, are the strongest incitements to the natives to worship the deity, and to submit themselves to his will.

The other sciences and branches of learning taught to the Indian youth are: Poetry, *Gavya;* Fencing, *Payatta;* Botany and medicine, *Vaydyassastra*, or *Bheszagiashastra*: Navigation, *Naushastra*: The use of the spear on foot (*Hastiludium*), *Cundera*: The art of playing at ball, *Pandacali*: Chess, *Ciudarangam*: Tennis, *Coladi*: Logic, *Tarkashastra*: Astrology, *Giodisha*: Law, *Svadhyaya*: Silence, *Mauna.*(Youth destined to be Brahmans, must spend ten years within the precincts of the temple at Trichur, and avoid all intercourse with the female sex. They are obliged also to observe the strictest silence, which continues for five years. This is the first degree of philosophy. A. It thence appears, that Phythagoras must have borrowed his philosophy in part from the Indian Philosophers, or others whose doctrine was similar, for his scholars were subjected to silence for the same number of years. See *Diogenes Lacrtus*, lib.viii.10, *and Aul. Gollius*, Noct, Att, 1-ib. i.9F.) The reader will have already remarked, that surgery, anatomy, and geography are excluded from this catalogue. The Indians are of opinion, that their country is the most beautiful and happiest in the whole world: and for that reason they have very little desire to be acquainted with foreign kingdoms. Their total abstinence from all flesh, and the express prohibition of their religion which forbids them to kill animals, prevent them from dissecting them and examining their internal construction.

Of the Indian poetry I have already spoken in my Samscred grammar; and I shall give some further account of it hereafter. Their navigation is confined merely to their navigable rivers; for in general, the Pagan Indians have the greatest aversion to the sea. The management of the lance, fencing, playing at ball and tennis, have been introduced into their education on good grounds, to render their youth active and robust, and that they may not want dexterity to distinguish themselves in battles and engagements where cannons are not used. There are particular masters for all these exercises, arts and sciences; and each of them, as already mentioned, is treated with particular respect by the pupils. Twice a year each master receives a piece of silk, which he employs for clothing; and this present is called *Samanam*.

All the Indian girls, those alone excepted who belong to the castes of the Shudras and Nayris, are confined at home till their twelfth year; and when they go out, they are always accompanied by their mother or aunt. They inhabit a particular division of the house, called *Andarggraha*, which none of the male sex dare approach. The boys, in the ninth year of their age, are initiated with great ceremony into the calling or occupation of the caste to which their father belongs, and which they can never abandon. This law, mention of which occurs in Diodorous Siculus, Strabo, Arrian, and other Greek writers, is indeed exceedingly hard; but, at the same time, it is of great benefit to civil order, the arts and sciences, and even to religion. According to a like regulation, no one is allowed to marry from one caste into another. Hence it happens that the Indians do not follow that general and superficial method of education by which children are treated as if they were all intended for the same condition and for discharging the same duties; but those of each caste are from their infancy formed for what they are to be during their whole lives. A future Brahman, for example, is obliged, from his earliest years, to employ himself in reading and writing, and to be present at the presentation of offerings, to calculate eclipses of the sun and moon; to study the laws and religious practices; to cast nativities; in short to learn every thing, which, according to the injunction of the *Veda*, or sacred books of the Indians, it is necessary he should know. The *Vayshya* on the other hand, instruct youth in agriculture; the *Kshetria*, in the science of government and the military arts, the *Shudra*, in mechanics, the *Mucaver*, in fishing; the *Ciana*, in gardening and the *Banyen*, in commerce.

By this establishment the knowledge of a great many things necessary for the public good is not only widely diffused, but transmitted to posterity; who are thereby enabled still farther to improve them, and bring them nearer to perfection. In the time of Alexander the Great, the Indians had acquired such skill in the mechanical arts, that Nearchus, the commander of his fleet, was much amazed at the dexterity with which they imitated the accoutrements of the Grecian soldiers. I once found myself in a similar situation. Having entrusted to an Indian artist a lamp made in Portugal, the workmanship of which was exceedingly pretty, some days after he brought me another so like my own that I could scarcely distinguish any difference. It, however, cannot be denied, that the arts and sciences in India have greatly declined since foreign conquerors expelled the native kings; by which several provinces have been laid entirely waste, and the castes confounded with each other. Before that period, the different kingdoms were in a flourishing condition; the laws were respected, and justice and civil order prevailed; but, unfortunately, at present everything in many of the provinces must give way to absolute authority and despotic sway.

Annexure C

MALABAR BIBLIOGRAPHY, THEIR PROGRESS IN LITERATURE, EDUCATION—SYSTEM BORROWED FROM IT. ACCOUNT OF IT FROM PETER DELLA VALLE. CUSTOM IN MALABAR TO TRANSLATE WORKS FROM SANSCRIT, MANNER OF WRITING OR ENGRAVING ON LEAVES. QUOTATION FROM LUSIAD. LIST OF BOOKS.

(*National Library of Scotland Edinburgh: Walker of Bowland Papers 184 a 3, Chapter 31: pp.501-27*)

I do not propose to give a history of the literature of Malabar; far less to enquire into the origin and progress of the sciences of India. I mean only to preface by a few observations a bibliographical list which I obtained many years ago (in 1800) of some of the books and authors whose works are studied in that country (Malabar).

The literature of Malabar has the same foundation, and consists of the same materials, as that of all the Hindoo nations. The whole of their original works are composed in Sanscrite, a language of great antiquity, but which is no longer spoken, though its history is intimately connected with several of the present languages of Europe, with those of Greece and Rome, and with the whole of the numerous family of cognate Gothic tongues. Sancrite holds the same place in India, that Latin and Greek do in Europe; but as it would require an amazing period of time, and many political changes in society before a language could fall into disuse and be unemployed in speech, this circumstance without any further proof, would carry us, back to the first ages. It is natural to suppose that the sciences would first prosper where men were not exposed to excessive labour in order to procure the necessaries of life; plenty and tranquility would leave them at liberty to cultivate knowledge, to apply their minds to books, and learning. Unfortunately the Hindoos, like the ancients, seem to have considered that almost exclusively as science, which is more grounded on precepts and ideal pictures, than on facts and demonstration. They taught the duties of life, and explained the faculties of the mind; but, the favourite study of the Indian sages, was a metaphysical and abstruse philosophy, founded on superstition and error. They regarded logic, rhetoric and grammar with particular approbation; and those who aspired to a superior reputation, acquired those sciences with unceasing labour, and intense application. They spent their lives in their cultivation. The Hindoos made no use of experiments, and it is extraordinary that without this aid, they should have become acquainted with the most difficult and hidden branches of Mathematics, Astronomy and Algebra. Have the acquisitions been the fruits of their own study and reflection; or have they been obtained from extraneous and a more ancient source which is now forgotten and lost? It is not possible to determine these questions; and as we cannot prove that they derived their knowledge from another people, it is but fair to consider them as the inventors of all which they possess, which they have preserved through so many perils and which they must have cultivated with so much ardour.

The learning of the Malabar is probably more limited than that of the more central people of India; but they are not inattentive to the cultivation of letters. They are particularly anxious and attentive to instruct their children to read and to write. Education with them is an early and an important business in every family. Many of their women are taught to read and write. The Bramans are generally the school masters, but any of the respectable castes may, and often do, practice teaching. The children are instructed without violence, and by a process peculiarly simple. It is the same system which has caused so much heat and controversy, as to the inventors of it, in this country, and the merit of which was due to neither of the claimants.[1] The system was borrowed from the Bramans and brought from India to Europe. It has been made the foundation of National schools in every enlightened country. Some gratitude is due to a people from whom we have learnt to diffuse among the lower ranks of society instruction by one of the most unerring and economical methods which has ever been invented. The pupils are the monitors of each other, and the characters are traced with a rod, or the finger on the sand. Reading and writing are acquired at the same time, and by the same process. This mode of teaching however is only initial. If the pupil is meant to study the higher branches of learning, he is removed from these primary schools, where the arts of reading, writing and accounts are acquired, and placed under more scientific masters. It is to these elementary schools that the labouring classes in India owe their education. It gives them an access, from the introduction of the system into this part of the world; advantage which the same classes in Europe, only now partially conferred on them a superior share of intelligence and placed them in a situation to perform better all the duties of life.

About 200 years ago, Peter Della Valle published an account of this mode of instruction in Malabar. He wrote from Tkkeri 22nd November 1623.

'In the meantime,' he says, 'while the burthens were getting in order, I entertained myself in the porch of the temple, beholding little boys learning arithmetic after a strange manner, which I will here relate. They were four, and having all taken the same lesson before the master, to get that same by heart, and repeat likewise their former lessons, and not forget them, one of them singing musically with a certain continued tone,[2] (which hath the force of making a deep impression in the memory) recited part of the lesson; as for example, "one by itself makes one"; and whilst he was thus speaking, he writ down the same number, not with any kind of pen, nor in paper, but (not to spend paper in vain) with his finger on the ground, the pavement being for that purpose strewed all over with fine sand;[3] after the first had wrote what he sung, all the rest sung and writ down the same thing together. Then the first boy sung, and writ down another part of the lesson; as, for example, two by itself makes two, which all the rest repeated in the same manner; and so forward in order. When the pavement was full of figures, they put them out with the hand, and if need were, strewed it with new sand from a little heap which they had before them wherewith to write further. And thus they did as long as exercise continued; in which manner likewise they told one, they learnt to read and write without spoiling paper, pens or ink, which certainly is a pretty way. I asked them, if they happen to forget or be mistaken in any part of the lesson, who corrected and taught them, they being all scholars without the assistance of any master; they answered me, and said true, that it was not possible for all four to forget or mistake in the same part, and that they thus exercised together, to the end, that if one happened to be out, the other might correct him. Indeed a pretty, easy and secure way of learning.'[4]

We are continually reproaching the natives of India with the slow advances they have made in knowledge and their neglect of opportunities to acquire it. There we have an instance of the same neglect in Europeans, who have allowed two centuries to pass after they were acquainted with this invention, before they applied it to any practical use. It was at length introduced into this country without any acknowledgement and it was even claimed as an invention by two individuals who disputed upon the priority of discovery.

The Missionaries[5] have now honestly owned that the system upon which these schools are taught was borrowed from India. It has been probably improved by us, but this is the fate of all original conceptions, which commonly make the most rapid advances at second hand.

No people probably appreciate more justly the importance of instruction than the Hindoos; hence instead of offering obstacles or creating opposition to the establishment of schools, they have formed institutions themselves to meet various cases of ignorance and misery. They are not averse to a spirit of enquiry and discussion.[6] All they wanted was a government that would not check and discourage this spirit.

In Malabar is still to be seen the earliest mode of writing. The paper is the natural produce of the woods. They make no use of ink; the characters are engraved on the leaves of trees. The leaf of a particular palm is selected and dried until it can bear the impression of the styles. These leaves strung or tied together are formed into books. They are enclosed in a wooden cover, sometimes gilded and lackered, so as to make neat and handsome appearance. On these leaves also they write their letters, which they fold up, but the original practice of the country did not require them to be sealed. 'The original Acts of the Council of Basil 900 years since, with the Bulla or leaden affix, which has a silken cord passing through every parchment,' is mentioned in the above words by Evelyn as existing in his time at Cambridge, and which would appear to be the same form as that in which the Malabar MSS are preserved.[7]

In Norway and Sweden they formerly wrote, or rather engraved, on flakes and planks. They wrote on wooden tablets. Poetry was inscribed on staves. A verse is therefore still called a stave.[8]

The mode of writing or engraving on leaves was probably at one period extended all over India. It is mentioned by Abdulrizack who travelled in 1442, as the common practice at Bisnaghur.[9]

There is no difficulty in multiplying schools at present in India to any extent provided funds are furnished. The people are anxious and earnest in calling upon the Missionaries for teachers. With a little patience, we may introduce into these schools *any* books that we please. In them the children know of no precedence, but that which is derived from merit.[10] This is an extraordinary testimony in favour of the native character, and from a source where we can expect no kindly prejudice. They entertain no suspicion of the ultimate designs of their instructors; but with candour and openness send their children to school, where we are elsewhere informed, no difficulty was found in introducing the scriptures, when done with discretion.[11] They sacrifice all the feelings of wealth, family pride and caste that their children may have the advantages of a good education. This desire is strongly impressed on the minds of all the Hindoos. It is inculcated by their own system, which provided schools in every village. The learned and the ignorant, one of the Missionaries writes from Chinsuram, congratulate one another, that their children now enjoy the great blessings of education. Native free schools were once universal throughout India.

It has been long the practice in Malabar to translate the Sanscrite writings into the common tongue, and to transcribe them in the vernacular character. By this means knowledge has been more generally diffused among the inhabitants; it is less confined to any order or class, and the people are better acquainted with the mysteries and dogmas of their religion. This spirit of enquiry and of liberty has most probably been affected by the sooders who compose the great body of population, and who were in possession of the principal authority and property in the country.

The Malabars have a mode of writing peculiar to themselves: it may be called with more propriety engraving. The letters are imprinted on a palm leaf dried and prepared by a particular process. Instead of a pen, they make use of an iron instrument with a sharp point resembling the stylus of the ancients. When they write on paper, they have recourse to the pen; but this is only in imitation of our manners or of the Mohammedans. Stones, skins, leaves, and the bark of trees, were the earliest materials made use of in writing. These leaves are not subject to decay, and resist vermin. They may be preserved a long time, much longer perhaps than paper; they write in general only on one side and from left to right. They cut the leaves into different sizes, and manufacture them of different qualities, which may be compared to different sorts of paper. They are made to answer either for books, notes or letters. They are formed into neat and convenient sized volumes not by stitching or binding but by stringing them together. A blank space is left at the end like our margin, through this a hole is made which admits a string or cord, generally of silk, and this drawn tight, or tied round them keeps the whole secure. The leaves are opened and unfolded by the Natives with the same facility as we do those of our books. The Malabar books are bound or covered by two pieces of wood which serve as boards, and which are varnished and painted according to taste.

In Malabar in short, the original practice was to use neither pens, ink, nor paper. The leaf of the palm, smoked and dried served the purpose of paper. They engraved on this with a pointed iron resembling that with which the ancients inscribed letters on wax, and with a quickness and facility equal to our fastest writers. (Omitted here)

The following contains a list of books which are to be found in Malabar: many were lost or destroyed during the disturbances under the Mohammedan Government, but the whole are still said to be existing in Travancore. This probably comprises the greatest part of Malabar literature. About 30 or 40 of these works have been transferred from the Sanscrit into the common tongue. Many of the Sanscrit words are allowed to remain in the translations and the affinity of the languages permits this liberty.

In the notes to the *Lusiad* mention is made of a Malabar work which is probably contained in No.181 of the bibliography;

it may have been written by some Secretary and is perhaps at present suppressed or concealed.

'There is extant in India the writings of a Malabar poet, who wrote nine hundred epigrames, each consisting of eight verses, in ridicule of the worship of the Bramans, whom he treats with great asperity and contempt. Would any of our diligent enquirers after oriental learning favour us with an authentic account of the works of this poet of Malabar, he would undoubtedly confer a singular favour on the republic of letters.'[12]

The author was probably a Deist: this is the secret profession of many Bramans, who are often at no pains to conceal their sentiments, and express openly their entire disbelief in all the Hindoo deities. I have been acquainted intimately with several Bramans who entertained these opinions, and who avowed their belief in one God only, the supreme being, the Creator of all. Reformers have appeared at different times in India, and the Vedantic sect in particular put no faith in the popular superstition.

The Malabars have a number of dramas or naticas and are fond of theatrical exhibitions.

I have been present at these exhibitions. The theatre is either in the open air, or under a slight temporary covering;[13] but sometimes large enough to contain several thousand spectators. On these occasions, they have regular rows of forms and benches, on which the audience seat themselves. The men and women are intermixed as in our play houses. This is an amiable and remarkable contrast with the manners and jealous reserve of other parts of India. I have seen probably two thousand men and women assembled and sitting close together to witness one of these exhibitions. This, however, was on a great occasion of the marriage of a Raja's daughter. There was a very large *pendall* erected, with rows of seats one above another, for the accommodation of the audience. The dramatist personae were gods, goddesses, kings, heroes and their attendants. The actors were dressed, suitably as they imagined to the characters they represented, but there was no machinery employed. The whole of the scenery consisted of a sheet or a calampoe, which formed a curtain.

The subject of the piece seemed to be the embarrassment of a Raja who was married to two wives. They tormented him with their quarrels and jealousies. He prayed to the Gods for relief. His prayers were heard, and he received a charm which enabled him to put whichever of the ladies he chose asleep. He was delighted with the remedy and looked forward for nothing in future but happiness. On a trial however he was disappointed. The waking wife was as suspicious as ever, and was continually upbraiding him for his partiality to her rival. He throws them by turns asleep, but has no relief. Each as she awoke was still jealous of the other. I have forgotten how it ended, but the account of this marriage was published in the newspapers of the time in India, about 1793. I cannot at present lay my hands on the account of this wedding which afterwards was transferred to some of the periodical publications at home. The object I think was to inculcate that one wife was preferable to two.

Notes

1. Bell and Lancaster System.
2. This is done in our infant schools.
3. They have small boards of the size and shape of our plates covered with sand or chalk.
4. Letters, Peter Della Valle, p.100.
5. The Missionary Register for January, 1879.
6. *Ibid.*
7. Evelyn VI, p.277.
8. *Edinburg Review*, No.67.
9. See p.518.
10. Missionary Register for January 1822.
11. *Ibid.*.
12. *Lusiad*, Book 8, p.300
13. *Pendall*

Annexure D

Extracts From William Adam's State of Education in Bengal 1835-38

I

W. ADAM ON INDIGENOUS ELEMENTARY SCHOOLS

GENERAL: (pp.6-9)

By this description are meant those schools in which instruction in the elements of knowledge is communicated, and which have been originated and are supported by the natives themselves, in contra-distinction from those that are supported by religious or philanthropic societies. The number of such schools in Bengal is supposed to be very great. A distinguished member of the General Committee of Public Instruction in a minute on the subject expressed the opinion, that if one rupee per mensem were expended on each existing village school in the Lower Provinces, the amount would probably fall little short of 12 lakhs of rupees per annum. This supposes that there are 100,000 such schools in Bengal and Bihar, and assuming the population of those two Provinces to be 40,000,000 there would be a village school for every 400 persons. There are no *data* in this country known to me by which to determine out of this number the proportion of school-going children, or of children capable of going to school, or of children of the age at which, according to the custom of the country, it is usual to go to school. In Prussia (See Cousin's Report on the *State of Public Instruction in Prussia,* p.140) it has been ascertained by actual census that in a population of 12,256,725 there were 4,487,461 children under fourteen years of age; which gives 366 children for every 1,000 inhabitants, or about eleven-thirtieths of the nation. Of this entire population of children it is calculated that three-sevenths are of an age to go to school, admitting education in the schools to begin at the age of seven years complete, and there is thus in the entire Prussian monarchy the number of 1,923,200 children capable of receiving the benefits of education. These proportions will not strictly apply to the juvenile population of this country because the usual age for going to school is from five to six, and the usual age for leaving school is from ten to twelve instead of fourteen. There are thus two sources of discrepancy. The school-going age is shorter in India than in Prussia, which must have the effect of diminishing the total number of school-going children; while on the other hand, that diminished number is not exposed to the causes of mortality to which the total school-going population of Prussia is liable from the age of twelve to fourteen. In want of more precise data, let us suppose that these two contrary discrepancies balance each other, and we shall then be at liberty to apply the Prussian proportions to this country. Taking, therefore, eleven-thirtieths of the above-mentioned 400 persons, and three-sevenths of the result, it will follow that in Bengal and Bihar there is on an average a village school for every sixty-three children of the school-going age. These children, however, include girls as well as boys, and as there are no indigenous girls' schools, if we take the male and female children to be in equal or nearly equal proportions, there will appear to be an indigenous elementary school for every thirty-one or thirty-two boys. The estimate of 100,000 such schools in Bengal and Bihar is confirmed by a consideration of the number of villages in those two Provinces. Their number has been officially estimated at 150,748 of which, not all, but most have each a school. If it be admitted that there is so large a proportion as a third of the villages that have no schools, there will still be 100,000 that have them. Let it be admitted that these calculations from uncertain premises are only distant approximations to the truth, and it will still appear that the system of village schools is extensively prevalent; that the desire to give education to their male children must be deeply seated in the minds of parents even of the humblest classes; and that these are the institutions, closely interwoven as they are with the habits of the people and the customs of the country, through which primarily, although not exclusively, we may hope to improve the morals and intellect of the native population.

It is not, however, in the present state of these schools, that they can be regarded as valuable instruments for this purpose. The benefits resulting from them are but small, owing partly to the incompetency of the instructors, and partly to the early age at which through the poverty of the parents the children are removed. The education of Bengalee children, as has been just stated, generally commences when they are five or six years old and terminates in five years, before the mind can be fully awakened to a sense of the advantages of knowledge or the reason sufficiently matured to acquire it. The teachers depend entirely upon their scholars for subsistence, and being little respected and poorly rewarded, there is no encouragement for persons of character, talent or learning to engage in the occupation. These schools are generally held in the houses of some of the most respectable native inhabitants or very near them. All the children of the family are educated in the vernacular language of the country; and in order to increase the emoluments of the teachers, they are allowed to introduce, as pupils, as many respectable children as they can procure in the neighbourhood. The scholars begin with tracing the vowels and consonants with the finger on a sand-board and afterwards on the floor with a pencil of steatite or white crayon; and this exercise is continued for eight or ten days. They are next instructed to write on the palm-leaf with a reed-pen held in the fist not with the fingers, and with ink made of charcoal which rubs out, joining vowels to the consonants, forming compound letters, syllables, and words, and learning tables of numeration, money, weight, and measure, and the correct mode of writing the distinctive names of persons, castes, and places. This is continued about a year. The iron style is now used only by the teacher in sketching on the palm-leaf the letters which the scholars are required to trace with ink. They are next advanced to the study of arithmetic and the use of the plantain-leaf in writing with ink made of lamp-black, which is continued about six months, during which they are taught addition, subtraction, multiplication and division, and the simplest cases of mensuration of land and commercial and agricultural accounts, together with the modes of address proper in writing letters to different persons. The last stage of this limited course of instruction is that in which the scholars are taught to write with lamp-black ink on paper, and are further instructed in agricultural and commercial accounts and in the composition of letters. In country places the rules of arithmetic are principally applied to agricultural and in towns to commercial accounts; but in both town and country schools the instruction is superficial and defective. It may be safely affirmed that in no instance whatever is the orthography of the language of the country acquired in those schools, for although in some of them two or three of the more advanced boys write out small portions of the most popular poetical compositions of the country, yet the manuscript copy itself is so inaccurate that they only become confirmed in a most vitiated manner of spelling, which the imperfect qualifications of the teacher do not enable him to correct. The scholars are entirely without instruction, both literary and oral, regarding the personal virtues and domestic and social duties. The teacher, in virtue of his character, or in the way of advice or reproof, exercises no moral influence on the character of his pupils. For the sake of pay he performs menial service in the spirit of a menial. On the other hand, there is no text or school-book used containing any moral truths or liberal knowledge, so that education being limited entirely to accounts, tends rather to narrow the mind and confine its attention to sordid gain, than to improve the heart and enlarge the understanding. This description applies, as far as I at present know, to all indigenous elementary schools throughout Bengal.

ELEMENTARY BENGALI SCHOOLS (pp.137-146)

It is expressly prescribed by the authorities of Hindu law that children should be initiated in writing and reading in their fifth year; or, if this should have been neglected, then in the seventh, ninth, or any subsequent year, being an odd number. Certain months of the year, and certain days of the month and week, are also prescribed as propitious to such a purpose; and on the day fixed, a religious service is performed in the family by the family-priest, consisting principally of the worship of *Saraswati*, the goddess of learning, after which the hand of the child is guided by the priest to form the letters of the alphabet, and he is also then taught, for the first time, to pronounce them. This ceremony is not of indispensable obligation on Hindus, and is performed only by those parents who possess the means and intention of giving their children more extended instruction. It is strictly the commencement of the child's school education, and in some parts of the country he is almost immediately sent to school; but in this district [Rajshahy] I do not find that there is any determinate age for that purpose. It seems to be generally regulated by means and opportunities of the parent and by the disposition and capacity of the child; and as there is a specified routine of instruction, the age of leaving school must depend upon the age of commencement.

The Bengali schools in Nattore are ten in number, containing 167 scholars, who enter school at an age varying from five to ten years, and leave it at an age varying from ten to sixteen. The whole period spent at school also varies, according to the statements of the different teachers from five to ten years; two stating that their instructions occupied five years, one six years, three seven years, two eight years, one nine years, and one ten years—an enormous consumption of time especially at the more advanced ages, considering the nature and amount of the instruction communicated.

The teachers consist both of young and middle-aged men, for the most part simple-minded, but poor and ignorant, and, therefore, having recourse to an occupation which is suitable both to their expectations and attainments, and on which they reflect as little honor as they derive emolument from it; they do not understand the importance of the task they have undertaken; they do not appear to have made it even a subject of thought; they do not appreciate the great influence which they might exert over the minds of their pupils; and they consequently neglect the highest duties which their situation would impose, if they were better acquainted with their powers and obligations. At present they produce chiefly a mechanical effect upon the intellect of their pupils which is worked upon and chiseled out, and that in a very rough style, but which remains nearly passive in their hands, and is seldom taught or encouraged to put forth its self-acting and self-judging capacities. As to any moral influence of the teachers over the pupils—any attempt to form the sentiments and habits, and to control and guide the passions and emotions—such a notion never enters into their conceptions, and the formation of the moral character of the young is consequently wholly left to the influence of the casual associations amidst which they are placed, without any endeavour to modify or direct them. Any measures that may be adopted to improve education in this country will be greatly inadequate if they are not directed to increase the attainments of the teachers, and to elevate and extend their views of the duties belonging to their vocation.

The remuneration of the teachers is derived from various sources. Two teachers have their salaries wholly, and another receives his in part, from benevolent individuals who appear to be influenced only by philanthropic motives; a fourth is remunerated solely in the form of fees; and the remaining six are paid by fees and partly by perquisites. There are in general four stages or gradations in the course of instruction indicated by the nature of the materials employed for writing on, viz., the ground, the palm-leaf, the plantain-leaf, and paper; and at the commencement of each stage after the first a higher fee is charged. In one instance the first and second stages are merged into one; in another instance the same fee is charged for the third and fourth: and in a third, the first, second, and third stages are equally charged; but the rule I have stated is observed in a majority of cases, and partially even in those exceptions. Another mode adopted in two instances, of regulating the fees is according to the means of the parents whose children are instructed; a half, a third, or a fourth less being charged to the children of poor than to the children of rich parents in the successive stages of instruction. The perquisites of the teachers vary from four annas to five rupees a month; in the former case consisting of a piece of cloth or other occasional voluntary gift from the parents; and in the latter, or in similar cases, of food alone, or of food, washing, and all personal expenses, together with occasional presents. Those who receive food as a perquisite either live in the house of one of the principal supporters of the school, or visit the houses of the different parents by turns at meal-times. The total income of the teachers from fixed salaries and fluctuating fees and perquisites varies from three rupees eight annas to seven rupees eight annas per month, the average being rather more than five rupees per month.

The school at Dharail (No.34) affords a good specimen of the mode in which a small native community unite to support a school. At that place there are four families of Chaudhuris, the principal persons in the village; but they are not so wealthy as to be able to support a teacher for their children without the cooperation of others. They give the teacher an apartment in which his scholars may meet, one of the outer apartments of their own house in which business is sometimes transacted, and at other times worship performed and strangers entertained. One of those families further pays four annas a month, a second an equal sum, a third eight annas, and a fourth twelve annas, which include the whole of their disbursements on this account, no presents or perquisites of any kind being received from them, and for the sums mentioned their five children receive a Bengali education. The amount thus obtained, however, is not sufficient for the support of the teacher, and he, therefore, receives other scholars belonging to other families—of whom one gives one anna, another gives three annas, and five give each four annas a month, to which they add voluntary presents amounting per month to about four annas, and consisting of vegetable, rice, fish and occasionally a piece of cloth, such as a handkerchief or an upper or under garment. Five boys of Kagbariya, the children of two families, attend the Dharail school, the distance being about a mile, which, in the rainy season, can be travelled only by water. Of the five, two belonging to one family give together two annas, and the three others belonging to the other family give together four annas a month, and thus the whole income of the master is made up. This case shows by what pinched and stinted contributions the class just below the wealthy and the class just above the indigent unite to support a school; and it constitutes a proof of the very limited means of those who are anxious to give a Bengali education to their children, and of the sacrifices which they make to accomplish that object.

I have spoken of the emoluments of the teachers as low; but I would be understood to mean that they are low, not in comparison with their qualifications, or with the general rates of similar labour in the district, but with those emoluments to which competent men might be justly considered entitled. The humble character of the men, and the humble character of the service they render, may be judged from the fact already stated, that some of them go about from house to house to receive their daily food. All, however, should not be estimated by this standard; and perhaps a generally correct opinion of their relative position in society may be formed by comparing them with those persons who have nearly similar duties to perform in other occupations of life, or whose duties the teachers of the common schools could probably in most instances perform if they were called on to do so. Such, for instance, are the *Patwari*, the *Amin*, the *Shumarnavis*, and the *Khamarnavis* employed on a native estate. The *Patwari*, who goes from house to house, and collects the zemindar's rents, gets from his employer a salary of two rupees eight annas, or three rupees a month, to which may be added numerous presents from the ryots of the first productions of the season, amounting probably to eight annas a month. The *Amin*, who on behalf of the zemindar decides the disputes that take place among the villagers and measures their grounds, gets from three rupees eight annas to four rupees a month. The *Shumarnavis*, who keeps accounts of the collection of rents by the different *Patwaris*, receives about five rupees a month. And the *Khamarnavis*, who is employed to ascertain the state and value of the crops on which the zemindar has claims in kind, receives the same allowance. Persons bearing these designations and discharging these duties sometimes receive higher salaries; but the cases I have supposed are those with which that of the common native school-master may be considered as on a level, he being supposed capable of undertaking their duties, and they of undertaking his. The holders of these offices on a native estate have opportunities of making unauthorised gains, and they enjoy a respectability and influence which the native school-master does not possess; but in other respects they are nearly on an equality; and, to compensate for those disadvantages, the salary of the common school-master is in general rather higher, none of those whom I met in Nattore receiving in all less than three rupees eight annas, and some receiving as high as seven rupees eight annas a month.

There are no school-houses built for, and exclusively appropriated to, these schools. The apartments or building in which the scholars assemble would have been erected, and would continue to be applied to other purposes, if there were no schools. Some meet in the *Chandi Mandap*, which is of the nature of a chapel belonging to one of the principal families in the village, and in which, besides the performance of religious worship on occasion of the great annual festivals, strangers also are sometimes lodged and entertained, and business transacted; others in the *Baithakkhana*, an open hut principally intended as a place of recreation and of concourse for the consideration of any matters relating to the general interests of the village; others in the private dwelling of the chief supporter of the school, and others have no special place of meeting, unless it be the most vacant and protected spot in the neighbourhood of the master's abode. The school (a) in the village numbered 4 meets in the open air in the dry seasons of the year; and in the rainy season those boys whose parents can afford it erect each for himself a small shed of grass and leaves, open at the sides and barely adequate at the top to cover one person from the rain. There were five or six such sheds among 30 or 40 boys; and those who had no protection, if it rained, must either have been dispersed or remained exposed to the storm. It is evident that the general efficiency and regularity of school-business, which are promoted by the adaptation of the school-room to the enjoyment of comfort by the scholars, to full inspection on the part of the teacher, and to easy communication on all sides, must here be in a great measure unknown.

Respecting the nature and amount of the instruction received, the first fact to be mentioned is that the use of printed books in the native language appears hitherto to have been almost wholly unknown to the natives of this district, with the exception of a printed almanac which some official or wealthy native may have procured from Calcutta; or a stray missionary tract which may have found its way across the great river from the neighbouring district of Moorshedabad. A single case of each kind came under observation; but as far as I could ascertain, not one of the school-masters had ever before seen a printed book, those which I presented to them from the Calcutta School-Book

Society being viewed more as curiosities than as instruments of knowledge. That Society has now established an agency for the sale of it publications at Bauleah, hence works of instruction will probably in time spread over the district.

Not only are the printed books not used in these schools, but even manuscript text-books, are unknown. All that the scholars learn is from the oral dictation of the master; and although what is so communicated must have a firm seat in the memory of the teacher, and will probably find an equally firm seat in the memory of the scholar, yet instruction conveyed solely by such means must have a very limited scope. The principal written composition which they learn in this way is the *Saraswati Bandana*, or salutation to the Goddess of Learning, which is committed to memory by frequent repetitions, and is daily recited by the scholars in a body before they leave school all kneeling with their heads bent to the ground, and following a leader or monitor in the pronunciation of the successive lines or couplets. I have before me two versions or forms of this salutation obtained at different places; but they are quite different from each other, although described by the same name, and both are doggrels of the lowest description even amongst Bengali compositions. The only other written composition used in these schools, and that only in the way of oral dictation by the master, consists of a few of the rhyming arithmetical rules of *Subhankar*, a writer whose name is as familiar in Bengal as that of Cocker in England, without any one knowing who or what he was or when he lived. It may be inferred that he lived, or if not a real personage that the rhymes bearing that name were composed, before the establishment of the British rule in this country, and during the existence of the Mussalman power, for they are full of Hindustani or Persian terms, and contain references to Mahomedan usages without the remotest allusion to English practices or modes of calculation. A recent native editor has deemed it requisite to remedy this defect by a supplement.

It has been already mentioned that there are four different stages in a course of Bengali instruction. The *first* period seldom exceeds ten days, which are employed in teaching the young scholars to form the letters of the alphabet on the ground with a small stick or slip of bambu. The sand-board is not used in this district, probably to save expense. The *second* period, extending from two and a half to four years according to the capacity of the scholar, is distinguished by the use of the palm-leaf as the material on which writing is performed. Hitherto the mere form and sound of the letters have been taught without regard to their size and relative proportion; but the master with an iron-style now writes on the palm-leaf letters of a determinate size and in due proportion to each other, and the scholar is required to trace them on the same leaf with a reed-pen and with charcoal-ink which easily rubs out. This process is repeated over and over again on the same leaf until the scholar no longer requires the use of the copy to guide him in the formation of the letters of a fit size and proportion and he is consequently next made to write them on another leaf which has no copy to direct him. He is afterwards exercised in writing and pronouncing the compound consonants, the syllables formed by the junction of vowels with consonants, and the most common names of persons. In other parts of the country, the names of castes, rivers, mountains, etc., are written as well as of persons; but here the names of persons only are employed as a school-exercise. The scholar is then taught to write and read, and by frequent repetition he commits to memory the Cowrie Table, the Numeration Table as far as 100, the Katha Table (a land-measure table), and the Ser Table (a dry-measure table). There are other tables in use elsewhere which are not taught in the schools of this district. The *third* stage of instruction extends from two to three years which are employed in writing on the plantain-leaf. In some districts the tables just mentioned are postponed to this stage, but in this district they are included in the exercises of the second stage. The first exercise taught on the plantain-leaf is to initiate the scholar into the simplest forms of letter writing, to instruct him to connect words in composition with each other, and to distinguish the written from the spoken forms of Bengali vocables. The written forms are often abbreviated in speech by the omission of a vowel or a consonant, or by the running of two syllables into one, and the scholar is taught to use in writing the full not the abbreviated forms. The correct orthography of words of Sanscrit origin which abound in the language of the people, is beyond the reach of the ordinary class of teachers. About the same time the scholar is taught the rules of arithmetic, beginning with addition and subtraction, but multiplication and division are not taught as separate rules—all the arithmetical processes hereafter mentioned being effected by addition and subtraction with the aid of a multiplication table which extends to the number 20, and which is repeated aloud once every morning by the whole school and is thus acquired not as a separate task by each boy, but by the mere force of joint repetition and mutual imitation. After addition and subtraction, the arithmetical rules taught divide themselves into two classes, agricultural and commercial, in one or both of which instruction is given more or less fully according to the capacity of the teacher and the wishes of the parents. The rules applied to agricultural accounts explain the forms of keeping debit and credit accounts; the calculation of the value of daily or monthly labour at a given monthly or annual rate; the calculation of the area of land whose sides measure a given number of kathas or bigas; the description of the boundaries of land and the determination of its length, breadth, and contents; and the form of revenue accounts for a given quantity of land. There are numerous other forms of agricultural accounts, but no others appear to be taught in the schools of this district. The rules of commercial accounts explain the mode of calculating the value of a given number of sers at a given price per maund; the price of a given number of quarters and chataks at a given price per ser; the price of a tola at a given rate per chatak; the number of cowries in a given number of annas at a given number of cowries per rupee; the interest of money; and the discount chargeable on the exchange of the inferior sorts of rupees. There are other forms of commercial account also in common use, but they are not taught in the schools. The *fourth* and last stage of instruction generally includes a period of two years, often less and seldom more. The accounts briefly and superficially taught in the preceding stage are now taught more thoroughly and at a greater length, and this is accompanied by the composition of business letters, petitions, grants, leases, acceptances, notes of hand, etc., together with the forms of address belonging to the different grades of rank and station. When the scholars have written on paper about a year, they are considered qualified to engage in the unassisted perusal of Bengali works, and they often read at home productions as the translation of the *Ramayana, Manasa Mangal*, etc., etc.

This sketch of a course of Bengali instruction must be regarded rather as what it is intended to be than what it is, for most of the school-masters whom I have seen, as far as I could judge from necessarily brief and limited opportunities of observation, were unqualified to give all the instruction here described, although I have thus placed the amount of their pretensions on record. All, however, do not even pretend to teach the whole of what is here enumerated; some, as will be seen from Table II, professing to limit themselves to agricultural, and others to include commercial accounts. The most of them appeared to have a very superficial acquaintance with both.

With the exception of the Multiplication Table, the rhyming arithmetical rules of *Subhankar,* and the form of address to Saraswati, all which the younger scholars learn by mere imitation of sounds incessantly repeated by the elder boys, without for a long time understanding what those sounds convey—with these exceptions, native school-boys learn everything that they do learn not merely by reading but by writing it. They read to the master or to one of the oldest scholars what they have previously written, and thus the hand, the eye, and the ear are equally called into requisition. This appears preferable to the mode of early instruction current amongst ourselves, according to which the elements of language are first taught only with the aid of the eye and the ear, and writing is left to be subsequently acquired. It would thus appear also that the statement which represents the native system as teaching chiefly by the ear, to the neglect of eye, is founded on a misapprehension, for how can the aid of the eye be said to be neglected when with the exceptions above-mentioned, nothing appears to be learned which is not rendered palpable to the sense by the act of writing? It is almost unnecessary to add that the use of monitors or leaders has long prevailed in the common schools of India, and is well known in those of Bengali.

The disadvantages arising from the want of school-houses and from the confined and inappropriate construction of the buildings or apartments used as school-rooms have already been mentioned. Poverty still more than ignorance leads to the adoption of modes of instruction and economical arrangements which, under more favourable circumstances, would be readily abandoned. In the matter of instruction there are some grounds for commendation for the course I have described has a direct practical tendency; and, if it were taught in all its parts, is well adapted to qualify the scholar for engaging in the actual business of native society. My recollections of the village schools of Scotland do not enable me to pronounce that the instruction given in them has a more direct bearing upon the daily interests of life than that which I find given, or professed to be given, in the humbler village schools of Bengal.

ELEMENTARY PERSIAN SCHOOLS: (pp.148-153)

The Persian schools in Nattore are four in number, containing twenty-three scholars, who enter school at any age varying from four and a half to thirteen years, and leave it at an age varying from twelve to seventeen. The whole time stated to be spent at school varies from four to eight years. The teachers intellectually are of a higher grade than the teachers of Bengali schools, although that grade is not high compared with what is to be desired and is attainable. Morally, they appear to have as little notion as Bengali teachers of the salutary influence they might exercise on the dispositions and characters of their pupils. They have no fees from the scholars and are paid in the form of fixed monthly allowances with perquisites. The monthly allowances vary from one rupee eight annas to four rupees, and they are paid by one, two or three families, who are the principal supporters of the school. The perquisites, which are estimated at two rupees eight annas to six rupees a month, and consist of food, washing, and other personal expenses, are provided either by the same parties or by those parents who do not contribute to the monthly allowance. The total remuneration of a teacher varies from four to ten rupees per month, averaging about seven rupees. The principal object of the patrons of these schools is the instruction of their own children; but in one instance a worthy old Mussalman, who has no children, contributes a small monthly allowance, without which the teacher would not have sufficient inducement to continue his labours; and in another case besides two children of the family, ten other boys are admitted, on whom instruction, food, and clothing, are gratuitously bestowed. Two of the schools have separate school-houses, which were built by the benevolent patrons who principally support them. The scholars of the other two assemble in out-buildings belonging to one or other of the families whose children receive instruction.

Although in the Persian schools printed books are unknown, yet manuscript works are in constant use. The general course of instruction has no very marked stages or gradations into which it is divided. Like the Hindus, however, the Mussalmans formally initiate their children into the study of letters. When a child, whether a boy or a girl, is four years, four months, and four days old, the friends of the family assemble, and the child is dressed in his best clothes, brought in to the company, and seated on a cushion in the presence of all. The alphabet, the form of letters used for computation, the introduction to the Koran, some verses of Chapter LV, and the whole of Chapter LXXXVII, are placed before him, and he is taught to pronounce them in succession. If the child is self-willed, and refuses to read, he is made to pronounce the Bismillah, which answers every purpose, and from that day his education is deemed to have commenced. At school he is taught the alphabet, as with ourselves, by the eye and ear, the forms of the letters being presented to him in writing and their names pronounced in his hearing, which he is required to repeat until he is able to connect the names and the forms with each other in his mind. The scholar is afterwards made to read the thirteenth section of the Koran, the chapters of which are short, and are generally used at the times of prayer and in the burial service. The words are marked with the diacritical points in order that the knowledge of letters, their junction and correct orthography and their pronunciation from the appropriate organs may be thoroughly acquired; but the sense is entirely unknown. The next book put into his hands is the *Pandanameh* of Sadi, a collection of moral sayings, many of which are above his comprehension, but he is not taught or required to understand any of them. The work is solely used for the purpose of instructing him in the art of reading and of forming a correct pronunciation, without any regard to the sense of the words pronounced. It is generally after this that the scholar is taught to write the letters, to join vowels and consonants, and to form syllables. The next book is the *Amadnameh*, exhibiting the forms of conjugating the Persian verbs which are read to the master and by frequent repetition committed to memory. The first book which is read for the purpose of being understood is the *Gulistan* of Sadi, containing lessons on life and manners and this followed or accompanied by the *Bostan* of the same author. Two or three sections of each are read; and simultaneously short Persian sentences relating to going and coming, sitting and standing, and the common affairs of life, are read and explained. The pupil is afterwards made to write Persian names, then Arabic names and next Hindi names, especially such as contain letters to the writing or pronunciation of which difficulty is supposed to attach. Elegant penmanship is considered a great accomplishment, and those who devote themselves to this art employ from three to six hours every day in the exercise of it, writing first single letters, then double or treble, then couplets, quatrains, etc. They first write upon a board with a thick pen, then with a finer pen on pieces of paper pasted together; and last of all, when they have acquired considerable command of the pen, they begin to write upon paper in single fold. This is accompanied or followed by the perusal of some of the most popular poetical productions such as Joseph and Zuleikha, founded on a well-known incident in Hebrew history; the loves of Leila and Majnun; the *Secundar Nameh* an account of the exploits of Alexander the Great, etc., etc. The mode of computing by the Abjad, or letters of the alphabet, is also taught, and is of two sorts; in the first, the letters of the alphabet in the order of the Abjad being taken to denote units, tens, and hundreds to a thousand; and in the second the letters composing the names of the letters of the alphabet being employed for the same purpose. Arithmetic, by means of the Arabic numerals, and instruction at great length in the different styles of address, and in the forms of correspondence, petitions, etc., etc., complete a course of Persian instruction. But in the Persian schools of this district, this course is very superficially taught, and some of the teachers do not even profess to carry their pupils beyond the *Gulistan* and *Bostan*.

In a Persian school, after the years of mere childhood, when the pupils are assumed to be capable of stricter application, the hours of study with interval extend from six in the morning to nine at night. In the first place in the morning they revise the lessons of the previous day, after which a new lesson is read, committed to memory, and reported to the master. About mid-day they have leave of absence for an hour when they dine, and on their return to school they are instructed in writing. About three o'clock they have another reading lesson which is also committed to memory, and about an hour before the close of day they have leave to play. The practice with regard to the forenoon and afternoon lessons in reading, is to join the perusal of a work in prose with that of a work in verse; as the *Gulistan* with the *Bostan* and Abdulfazl's letters with the *Secundar Nameh*, the forenoon lesson being taken from one and the afternoon lesson from the other. In the evening they repeat the lessons of that day several times, until they have them perfectly at command; and, after making some preparation for the lessons of the next day, they have leave to retire. Thursday every week is devoted to the revision of old lessons; and when that is completed, the pupils seek instruction or amusement according to their own pleasure in the perusal of forms of prayer and stanzas of poetry, and are dismissed on that day at three o'clock without any new lesson. On Friday, the sacred day of Mussalmans, there is no schooling. In other districts in respectable or wealthy Mussalman families, besides the literary instructor called *Miyan* or *Akhun*, there is also a domestic tutor or *Censor Morum* called *Atalik*, a kind of head-servant whose duty it is to train the children of the family to good manners, and to see that they do not neglect any duty assigned to them; but I do not find any trace of this practice in Rajshahi.

Upon the whole the course of Persian instruction, even in its less perfect forms such as are found to exist in this district, has a more comprehensive character and a more liberal tendency than pursued in the Bengali schools. The systematic use of books although in manuscript is a great step in advance, accustoming the minds of the pupils to forms of regular composition, to correct and elegant language, and to trains of consecutive thought, and thus aiding both to stimulate the intellect and to form the taste. It might be supposed that the moral bearing of some of the text books would have a beneficial effect on the character of the pupils; but as far as I have been able to observe or ascertain, those books are employed like all the rest solely for the purpose of conveying *lessons in language*—lessons in the knowledge of sounds and words in the construction of sentences, or in anecdotal information, but not for the purpose of sharpening the moral perceptions or strengthening the moral habits. This in general native estimation does not belong to the business of instruction, and it never appears to be thought of or attempted. Others will judge from their own observation and experience whether the Mussalman character, as we see it in India, has been formed or influenced by such a course of instruction. The result of my own observations is that of two classes of persons, one exclusively educated in Mahomedan, and the other in Hindu literature; the former appears to me to possess an intellectual superiority, but the moral superiority does not seem to exist.

ELEMENTARY ARABIC SCHOOLS: (pp.152-153)

The Arabic schools, or schools for instruction in the formal or ceremonial reading of certain passages of the Koran, are eleven in number, and contain 42 scholars, who begin to read at an age varying from 7 to 14, and leave school at an age varying from 8 to 18. The whole time stated to be spent at school varies from one to five years. The teachers possess the lowest degree of attainment to which it is possible to assign the task of instruction. They do not pretend to be able even to sign their names; and they disclaim altogether the ability to understand that which they read and teach. The mere forms, names, and sounds, of certain letters and combinations of letters they know and teach, and what they teach is all that they know of written language, without presuming, or pretending, or aiming to elicit the feeblest glimmering of meaning from these empty vocables. This whole class of schools is as consummate a burlesque upon mere forms of instruction, separate from a rational meaning and purpose, as can well be imagined. The teachers are all *Kath-Mollas*, that is, the lowest grade of Mussalman priests who chiefly derive their support from the ignorance and superstition of the poor classes of their co-religionists; and the scholars are in training for the same office. The portion of the Koran which is taught is that which begins with Chapter LXXVIII of Sale's Koran, and extends to the close of the volume. The Mollas, besides teaching a few pupils the formal reading of this portion of the Koran, perform the marriage ceremony, for which they are paid from one to eight annas according to the means of the party; and also the funeral service with prayers for the dead continued from one to forty days, for which they get from two annas to one rupee, and it is in these services that the formal reading of the Koran is deemed essential. The Mollas also often perform the office of the village butcher, killing animals for food with the usual religious forms, without which their flesh cannot be eaten by Mussalmans; but for this they take no remuneration. In several cases, the teacher of the school depends for his livelihood on employment at marriages and burials, giving his instructions as a teacher gratuitously. In one instance a fixed allowance is received from the patron of the school, fees from some of the scholars, and perquisites besides, amounting in all to four rupees eight annas per month, and in this case the patron professes the intention to have the scholars hereafter taught Persian and Bengali. In another the patron merely lodges, feeds and clothes, the teacher who receives neither fixed allowance nor fees. In three instances the only remuneration the teacher receives is a *salami* or present of five or six rupees, from each scholar when he finally leaves school. In two instances the teachers have small farms from which they derive the means of subsistence in addition to their gains as Mollas. They give instruction either in their own houses, or in school-houses, which are also applied to the purposes of prayer and hospitality and of assembly on occasions of general interest.

No institutions can be more insignificant and useless, and in every respect less worthy of notice, than these Arabic schools, viewed as places of instruction; but, however worthless in themselves, they have a certain hold on the Native mind, which is proved by the increased respect and emoluments as Mollas, expected and acquired by some of the teachers on account of the instruction they give; the expense incurred by others of them in erecting school-houses; and by the general employment by the Mussalman population of those who receive and communicate the slender education which these schools bestow. In the eye of the philanthropist or the statesman no institution however humble, will be overlooked, by which he may hope beneficially to influence the condition of any portion of mankind; and it is just in proportion to the gross ignorance of the multitude that he will look with anxiety for any loop-holes by which he may find an entrance to their understandings—some institutions, which are held by them in veneration and which have hitherto served the cause of ignorance, but which he may hope with discretion to turn to the service of knowledge. I do not despair that means might be employed, simple, cheap, and inoffensive, by which even the teachers of these schools might be reared to qualify themselves for communicating a much higher grade of instruction to a much greater number of learners without divesting them of any portion of the respect and attachment of which they are now the objects.

II

W. ADAM ON INDIGENOUS SCHOOLS OF LEARNING

GENERAL: (pp.16-23)

Ward in his work on the Hindoos has given, on the whole, a correct account of the state of indigenous learning and of the institutions by which it is preserved among the Hindoos. The principle which secures the perpetuation of these institutions, as long as the Hindoo religion subsists and is professed by the mass of the people and by a majority of the wealthy and powerful, is that it is deemed an act of religious merit to acquire a knowledge of the Hindoo shastras, or to extend the knowledge of them either by direct instruction or by pecuniary support or assistance given either to scholars or teachers. Hence the privations to which the students submit in the prosecution of the prescribed course of study; the disinterestedness of the teachers in bestowing their instructions gratuitously with the addition, always of shelter, often of food, and sometimes of clothing; and the liberality of landholders and others shown by occasional endowments of land and frequent gifts of money both to teachers and scholars on the occasion of funeral feasts, weddings, dedications, etc. The number of such institutions throughout the country is unknown nor are sufficient data possessed on which to rest a probable conjecture. In the district of Dinajpur, Dr Buchanan found only 16, and in that of Purniya not less than 119—a difference between two neighbouring districts in which some mistake may be suspected. The estimates of the number in other districts, besides those reported on by Dr Buchanan, are not the results of personal inquiries, and less dependence is, therefore, to be placed on them. If I were to hazard a conjecture founded on all the facts and statements I have met with, I should say that there are on an average probably 100 such institutions in each district of Bengal, which would give 1,800 for the whole province. An estimate of the total number of students must depend upon the approach to correctness of the conjecture respecting the total number of schools; but the following facts may help towards the formation of a correct opinion respecting the average number of students in each school. In 1818, Mr Ward enumerated 28 schools of Hindoo learning in Calcutta, in which 173 scholars received instructions, averaging upwards of six scholars to each school. He also enumerated 31 schools of Hindoo learning at Nuddea, in which 747 scholars received instruction, averaging upwards of 24 scholars to each school. In 1830, Mr H.H. Wilson ascertained by personal inquiry at Nuddea, that there were then about 25 schools in which between 5 and 600 scholars received instruction, and taking the number of scholars at 550 the average to each school will be 22. The average of these three estimates would give 17½ scholars to each school. The lowest or Calcutta average, that of six scholars to each school, I consider more probable than the others, for the instances are numerous throughout the country in which a learned Hindoo teacher has not more than three or four pupils. Assuming the Calcutta average and the previous estimate of the total number of schools, there will appear to be 10,800 students of Hindoo learning throughout Bengal. The total number of teachers and students of Hindoo learning will thus be 12,600; and this number is exclusive of a large class of individuals who, after having received instruction in a school of learning, and become in the technical sense of the term Pundits or learned men, from various causes decline to engage in the profession of teaching. If further inquiry should show that the lowest estimate, which is that I have assumed, is one-half in excess of the truth, there will still remain a large and influential class of men who either have received or are engaged in giving and receiving a Hindoo collegiate education.

The Hindoo colleges or schools in which the higher branches of Hindoo learning are taught are generally built of clay. Sometimes three or five rooms are erected, and in others nine or eleven, with a reading-room which is also of clay. These huts are frequently erected at the expense of the teacher, who not only solicits alms to raise the building, but also to feed his pupils. In some cases rent is paid for the ground; but the ground is commonly, and in particular instances both the ground and the expenses of the building are, a gift. After a school-room and lodging-rooms have been thus built to secure the success of the school, the teacher invites a few Brahmans and respectable inhabitants to an entertainment at the close of which the Brahmans are dismissed with some trifling presents. If the teacher finds a difficulty in obtaining scholars, he begins the college with a few junior relatives, and by instructing them and distinguishing himself in the disputations that take place on public occasions, he establishes his reputation. The school opens early every morning by the teacher and pupils assembling in the open reading-room, when the different classes read in turns. Study is continued till towards mid-day, after which three hours are devoted to bathing, worship, eating and sleep; and at three they resume their studies which are continued till twilight. Nearly two hours are then devoted to evening-worship, eating, smoking and relaxation, and the studies are again resumed and continued till ten or eleven at night. The evening studies consist of a revision of the lessons already learned, in order that what the pupils have read may be impressed more distinctly on the memory. These studies are frequently pursued, especially by the students of logic, till two or three o'clock in the morning.

There are three kinds of colleges in Bengal—one in which chiefly grammar, general literature, and rhetoric, and occasionally the great mythological poems and law are taught; a second, in which chiefly law and sometimes the mythological poems are studied; and third, in which logic is made the principal object of attention. In all these colleges select works are read and their meaning explained; but instruction is not conveyed in the form of lectures. In the first class of colleges, the pupils repeat assigned lessons from the grammar used in each college, and the teacher communicates the meaning of the lessons after they have been committed to memory. In the others the pupils are divided into classes according to their progress. The pupils of each class having one or more books before them seat themselves in the presence of the teacher, when the best reader of the class reads aloud, and the teacher gives the meaning as often as asked, and thus they proceed from day to day till the work is completed. The study of grammar is pursued during two, three, or six years, and where the work of Panini is studied, not less than ten, and sometimes twelve, years are devoted to it. As soon as a student has obtained such a knowledge of grammar as to be able to read and understand a poem, a law book, or a work on philosophy, he may commence this course of reading also, and carry on at the same time the remainder of his grammar-studies. Those who study law or logic continue reading either at one college or another for six, eight, or even ten years. When a person has obtained all the knowledge possessed by one teacher, he makes some respectful excuse to his guide and avails himself of the instructions of another. Mr Ward, from whom many of the preceding details have been copied estimates that 'amongst one hundred thousand Brahmans, there may be one thousand who learn the grammar of the Sunskritu, of whom four or five hundred may read some parts of the *kavyu* (or poetical literature), and fifty some parts of the *ulunkaru* (or rhetorical) shastras. Four hundred of this thousand may read some of the *smriti* (or law works); but not more than ten any part of the *tuntrus* (or the mystical and magical treatises of modern Hinduism). Three hundred may study the *nyayu* (or logic), but only five or six the *meemangsu*, (explanatory of the ritual of the veds), the *sunkhyu* (a system of philosophical materialism), the *vedantu* (illustrative of the spiritual portions of the veds), the *patunjulu* (a system of philosophical asceticism), the *vaisheshika* (a system of philosophical anti-materialism), or the *veda* (the most ancient and sacred writings of Hindoos). Ten persons in this number of Brahmans may become learned in the astronomical shastras, while ten more understand these very imperfectly. Fifty of this thousand may read the shree *bhaguvutu*, and some of the *pooranas*.' At the present day probably the *alankar shastras* and the *tantras* are more studied than is here represented. The astronomical works also receive more attention. The colleges are invariably closed and all study suspended on the eighth day of the waxing and waning of the moon; on the day in which it may happen to thunder; whenever a person or an animal passes between the teacher and the pupil while reading; when a honorable person arrives, or a guest; at the festival of Saraswati during three days; in some parts during the whole of the rainy season, or at least during two months which include the Doorga, the Kali, and other festivals, and at many other times. When a student is about to commence the study of law or of logic, his fellow students, with the concurrence and approbation of the teacher, bestow on him an honorary title descriptive of the nature of his pursuit, and always differing from any title enjoyed by any of his learned ancestors. In some parts of the country, the title is bestowed by an assembly of Pundits convened for the purpose; and in others the assembly is held in the presence of a raja or zemindar who may be desirous of encouraging learning and who at the same time bestows a dress of honour on the student and places a mark on his forehead. When the student finally leaves college and enters on the business of life, he is commonly addressed by that title.

The means employed by the Mahomedan population of Bengal to preserve the appropriate learning of their faith and race are less systematic and organised than those adopted by the Hindoos; and to whatever extent they may exist, less enquiry has been made and less information is possessed respecting them. It is believed, however, that in the Lower as well as the Western Provinces, there are many private Mahomedan schools begun and conducted by individuals of studious habits who have made the cultivation of letters the chief occupation of their lives, and by whom the profession of learning is followed, not merely as a means of livelihood, but as a meritorious work productive of moral and religious benefit to themselves and their fellow creatures. Few, accordingly, give instruction for any stipulated pecuniary remuneration, and what they may receive is both tendered and accepted as an interchange of kindness and civility between the master and his disciple. The number of those who thus resort to the private instruction of masters is not great. Their attendance and application are guided by the mutual convenience and inclination of both parties, neither of whom is placed under any system nor particular rule of conduct. The success and progress of the scholar depend entirely on his own assiduity. The least dispute or disagreement puts an end to study, no check being imposed on either party, and no tie subsisting between them beyond that of casual reciprocal advantages which a thousand accidents may weaken or dissolve. The number of pupils seldom exceeds six. They are sometimes permanent residents under the roof of their masters, and in other instances live in their own families; and in the former case, if Mussalmans, they are supported at the teacher's expense. In return, they are required to carry messages, buy articles in the bazar, and perform menial services in the house. The scholars in consequence often change their teachers, learning the alphabet and the other introductory parts of the Persian language of one, the *Pandnameh* of a second, the *Gulistan* of a third, and so on from one place to another, till they are able to write a tolerable letter and think they have learned enough to assume the title of *Munshi*, when they look out for some permanent means of subsistence as hangers-on at the Company's Courts. The chief aim is the attainment of such a proficiency in the Persian language as may enable the student to earn a livelihood; but not, unfrequently, the Arabic is also studied, its grammar, literature, theology and law. A proper estimate of such a desultory and capricious mode of education is impossible.

The number of institutions of Hindoo learning, now existing in Calcutta and the Twenty-four Pergunahs, is not accurately known. Mr Ward in his work published in 1818 enumerates 28 schools of Hindoo learning in Calcutta, naming the teacher of each school, the quarter of the city in which the school was situated, and the number of students receiving instruction. These institutions are also mentioned as only some amongst others to be found in Calcutta. The *nyaya* and *smriti shastras* chiefly were taught in them; and the total number of scholars belonging to the colleges actually enumerated was 173, of whom not less than three, and not more than fifteen, received the instructions of the same teacher. The enumeration to which I refer is subjoined in Mr Ward's words:—

'The following among other colleges are found in Calcutta; and in these the *nyaya* and *smriti shastras* are principally taught—

Ununtu-Ramu-Vidya-Vageeshu, of *Hati-Bagan*, fifteen students—
Ramu-Koomaru-Turkalunkaru, of ditto, eight students—
Ramu-Toshunu-Vidylunkaru, of ditto, eight ditto—
Ramu-Doolalu-Chooramunee, of ditto, five ditto—
Gorru-Munee-Nyayalunkaru, of ditto, four ditto—
Kashee-Nathu-Turka-Vegeeshu, of *Ghoshalu-Bagan*, six ditto—
Ramu-Shevu-Ku-Vidya-Vegeeshu, of *Shikdarer-Bagan*, four ditto—
Mrityoon-juyu-Vidyalunkaru, of *Bag-Bazar*, fifteen ditto—
Ramu-Kishoru-Turku-Chooramunee, of ditto, six ditto—
Ramu-Koomaru-Shiromunee, of ditto, four ditto—
Juyu-Narayunu-Turku-Punchanum, of *Talar-Bagan*, five ditto—
Shumbhoo-Vachusputee, of ditto, six ditto—
Sivu-Ramu-Nayayu-Vageeshu, of *Lal-Bagan*, ten ditto—
Gouru-Mohunu-Vidya-Bhooshunu, of ditto, four ditto—
Huree-Prusadu-Turku-Punchanunu, of *Hatti-Bagan*, four ditto—
Ramu-Narayunu-Turku-Punchanunu, of *Shimila*, five ditto—
Ramu-Huree-Vidya-Bhooshun, of *Huree-Tukee-Bagan*, six ditto—
Kumula-Kantu-Vidyalunkaru, of *Aru-koolee*, six ditto—
Govindu-Turku-Punchanunu, of ditto, five ditto—
Peetamburu-Nayayu-Bhooshunu, of ditto, five ditto—
Parvutee-Turku-Bhooshunu, of *T'hunt'-huniya*, four ditto—
Kashee-Nathu-Turkalunkaru, of ditto, three ditto—
Ramu-Nathu-Vaschusputee, of *Shimila*, nine ditto—
Ramu-Tunoo-Turku-Siddhantu, of *Mulunga*, six ditto—
Ramu-Tunoo-Vidya-Vageeshu, of *Sobha-Bazar*, five ditto—
Ramu-Koomaru-Turku-Punchanunu, of *Veerupara*, five ditto—
Kalee-Dasu-Vidya-Vageeshu, of *Italee*, five ditto—
Ramu-Dhunu-Turku-Vageeshu, of *Shimila*, five ditto.'

Hamilton states that in 1801 there were within the limits of the Twenty-four Pergunnahs, and as I suppose must be understood beyond the limits of the town of Calcutta, 190 seminaries in which Hindoo law, grammar, and metaphysics were taught. These institutions are stated to have been maintained by the voluntary contributions of opulent Hindoos and the produce of charity lands, the total annual expense being rupees 19,500. No details are given, but it may be inferred, although it is not expressly mentioned, that the statement rests on the authority of official documents. No cause has been in operation in the intermediate period to render it probable that the number of such seminaries within this district has since then been materially diminished. Mr Ward mentions that at *Juyunugur* and *Mujilee Pooru* seventeen or eighteen similar schools were found, and at *Andoolee* ten or twelve, these villages, according to my information, being within the limits of the district; but it is probable that they are included in the more comprehensive enumeration mentioned by Hamilton.

I do not find any account on record of any private institutions for the promotion of Mahomedan learning either in Calcutta or in the surrounding district. Hamilton states that in 1801 there was one and but one, *madrasa* or college for instruction in Mahomedan law, but he does not mention its particular locality, and it is not improbable that he refers to the institution endowed by Warren Hastings, and now under the superintendence of the General Committee of Public Instruction. There can be no doubt, however, that in this as well as in other districts of Bengal in which he have no authentic account of the state of Mahomedan learning, that loose system of private tuition already described prevails to a greater or less extent.

MIDNAPORE: (pp.50-51)

Hamilton states that in this district there are no schools where the Hindoo or Mahomedan laws are taught. There was formerly a Mahomedan college in the town of Midnapore, and even yet the establishment is said to exist, but no law is taught. Persian and Arabic are taught by maulavis who in general have a few scholars in their houses, whom they support as well as instruct. These Persian and Arabic students, although of respectable families, are considered as living on charity; and they are total strangers to expense and dissipation. The alleged absence of schools of Hindoo learning in a population of which six-seventh are said to be Hindoos is incredible, and denied by learned natives who have resided in the district and are personally acquainted with several schools of that description within its limits. They are not so numerous as the domestic schools of learning which prevail amongst the Mahomedan population; but they are not so few as to be wholly neglected. There are probably, I am told, about 40 in the district. It may be offered as a general remark to account for such incorrect statements, that the greater attention given by Europeans to the Mahomedan than to the Hindoo languages and literature, combined with the unobtrusive and retiring character of learned Hindoos, sometimes leads the public functionary to overlook institutions of Hindoo origin. It is probably from some such official authority that Hamilton has borrowed the statement to which I refer.

CUTTACK: (p.54)

Mr Stirling, in the elaborate account of this district, from which the preceding details are abridged, gives no information whatever on the state of education as conducted by natives, either in elementary schools or schools of learning. In the description of the town of *Puri Jugunnath*, it is stated that 'the principal street is composed almost entirely of the religious establishments called maths', a name applied in other parts of the country, both in the west and south, to convents of ascetics in which the various branches of Hindoo learning are taught. It may be inferred that they are applied to the same use in *Jugunnath Puri*.

HUGLY: (pp.57-59)

The number of Hindoo schools of learning in this district is considerable. Mr Ward in 1818 stated that at *Vansvariya*, a village not far from the town of Hugly, there were twelve or fourteen colleges, in all of which logic was almost exclusively studied. There were then also seven or eight in the town of *Triveni*, one of which had been lately taught by Jugannath Tarka Panchanan, supposed to be the most learned as well as the oldest man in Bengal, being 109 years old at the time of his death. He was acquainted in some measure with the *veda*, and is said to have studied the *vedanta*, the *sankhya*, the *patanjala*, the *nyaya*, the *smriti*, the *tantra*, the *kavya*, the *pooranas* and other *shastras*. Mr Ward also mentions that *Gundulpara* and *Bhudreshwuru* contained each about ten nyaya schools, and *Valee* two or three, all villages in this district. Hamilton states that in 1801 there were altogether about 150 private schools in which the principles of Hindoo law were taught by Pundits, each school containing from five to twenty scholars. There is no reason to suppose that the number of schools is now less, and the enquiries made in 1824 showed that there were some schools with thirty scholars. According to the reputation of the teacher is the number of the students, and in proportion to the number of the students is the number of invitations and the liberality of the gifts which the teacher receives on the occasion of the performance of important religious ceremonies in Hindoo families. The number of students has thus a double pecuniary operation. As they always derive a part of their subsistence from the teacher, they are a burden upon his means; and by the increased reputation which they confer upon him, they enable him to support that burden. Sometimes, however, students capable of living on their own means return home after school hours; and in other instances, the more wealthy inhabitants of the town or village are found to contribute towards the support of poor students whom the teacher cannot maintain. The first three or four years are occupied in the study of Sanscrit grammar and the next six or eight years in the study of law and logic, with which the generality of students finish their education, and are thenceforth classed among learned men, receiving from the teacher when they are leaving him an honorary title which they retain for life.

There are few Mahomedan schools of learning in this district. Omitting reference to that at Hugly, supported by the endowment of Haji Mohammed Moshin, under the orders of the Board of Revenue, and about to be extended and improved under the superintendence of the General Committee of Public Instruction, I find mention made of only one other existing at *Seetapore*, a populous town, situated 22 miles in the interior of the district. It was originally supported by a grant of five rupees eight annas per diem, made by the English Government in consideration of the faithful services of Umsih-ood-din the founder. After his death, and in consequence of divisions among the surviving members of his family, who it seems had claim to a part of the grant for their maintenance, it was limited to rupees 50 per month, which, as far as my information extends, it continues to derive from government to the present day. According to Hamilton, in 1801, this college had 30 students who were instructed in Persian and Arabic, and according to the report made to the General Committee in 1824, it had 25 students who were taught only Persian. This institution does not appear ever to have come under the supervision of the Committee or of any public officer. The report of 1824 further alleges the existence of certain lands at *Pandua* in this district, which should be appropriated to the support of *madrasas*, but which have been diverted from that purpose. It is stated to be a well known fact that grants were made to the ancestors of the late Mola Mir Gholam Hyder Mutawali, attached to the shrine of Shah Suffud-din Khan Shuhid at Pandua, together with Mola Myn-ud-din or Mola Taj-ud-din and Mir Gholam Mustafa, private persons who had no share in the superintendence. The grants are said to have specified certain villages or tracts of land to be exclusively appropriated to the support of three *madrasas*, in addition to those granted for the personal benefit of the grantees. The *madrasas* were kept up for a generation or two, but through carelessness or avarice were afterwards discontinued. It is added that there were persons then living so well acquainted with the circumstances as to be able to point out the estates that were specified in the grants for the support of the *madrasas*. The Collector, in the letter enclosing the report, intimated his intention to investigate the matter, and in the event of the alleged misappropriation being substantiated, to pursue the course directed in Regulation XIX of 1810. The result of the enquiry I have not been able to learn.

BURDWAN: (pp.70-72)

Hamilton says that in this district there are no regular schools for instruction in the Hindoo or Mahomedan law, and that the most learned professors of the former are procured from the district of Nuddea on the opposite side of the Hugly. The same remark may be applied to this statement that has already been made with reference to the state of learning in Midnapore. All that can be fairly understood from it is not that there are no native schools of learning in the district, but that there were none known to the writer, or to the public officer on whose authority the author relied. It is exceedingly improbable, from the analogy of other districts, that there are not some of those domestic schools of Mahomedan learning already described, and still more improbable that in a population of which five-sixths are Hindoos, there should not be a still greater number of schools of Hindoo learning.

The following references to institutions of learning in this district were extracted from the proceedings of the Board of Revenue at Calcutta, and first published in the memoir prepared at the India House which I have mentioned as one of my authorities:—

In September, 1818, the Collector of Burdwan was required to report upon a pension of rupees 60 per annum, claimed by

Rambullubh Bhattacharjya, for the support of a religious institution and seminary. The Collector deputed his ameen to the spot, to enquire whether the institution on which the pension was claimed was still maintained. The ameen reported that the institution appeared to be kept up, that the number of scholars generally entertained was about five or six, and that the allowance had been sanctioned by the government during the joint lives of Rambullubh Bhattacharjya and his deceased brother. Under these circumstances, the Revenue Board considered the claimant entitled to the full amount of the pension during his life, or as long as he should continue to appropriate it faithfully to the purposes for which it was originally granted. They accordingly authorised the future payment of this pension to Rambullubh Bhattacharjya, and the discharge of all arrears which had accrued subsequently to the decease of the claimant's brother.

In March, 1819, the Collector of Burdwan applied to the Revenue Board for instructions respecting certain payments to a musjid and *madrasa* in the district, respecting which a suit had been instituted in the Calcutta Court of Appeal, and the question ordered by that Court to be determined by the Collector under Regulation XIX, of 1810. The establishment in question was in the hands of Musil-ud-deen, who was called upon to produce his accounts, which he appears not to have done satisfactorily. The Collector, therefore, sent his ameen to the place to ascertain to what extent the establishment was kept up. That officer reported favourably of the establishment on the authority of the inhabitants of the village in which the *madrasa* was situated, but without any documents to corroborate his statements. Under these circumstances, the Revenue Board desired the Collector to take an opportunity of visiting the spot, in order that he might himself ascertain the grounds on which a decision might be come to. Nothing further appears relating to this *madrasa.*

In July, 1823, the Revenue Board reported an endowment for a College in Burdwan of 254 sicca rupees per annum, which was communicated to the General Committee of Public Instruction.

JESSORE: (p.73)

I have met with no reference to indigenous schools, either elementary or learned, in this district, but it is beyond all question that the number of both amongst Hindoos and Mussalmans is considerable. This district is a perfect and entire blank in as far as information regarding the state of indigenous education is concerned.

NUDDEA: (pp.75-82)

The town of Nuddea was the capital of Hindoo principality anterior to the Mahommedan conquest, and in more recent times it has been a seat of Brahmanical learning. Hamilton remarks that, as a seat of learning, it must have apparently declined to a very obscure condition, as in 1801 the Judge and Magistrate, in reply to the Marquis Wellesley's queries, declared that he knew not of any seminaries within the district in which either the Hindoo or Mahomedan law was then taught. This statement curiously contrasts with the following details, and affords another illustration of a remark already made, that the educational institutions of the Hindoos have sometimes been most strangely overlooked.

The celebrity of Nuddea as a school of Hindoo learning is wholly unconnected with any notion of peculiar sanctity as in the case of Benares. Its character as a university was probably connected with the political importance which belonged to it about the time of the Mahomedan invasion, as it seems to have been for a time the capital of Bengal. The princes of Bengal and the latter rajahs of Nuddea endowed certain teachers with lands for the instruction and maintenance of scholars, and the support thus given to pundits and pupils attracted a number of Brahmans to settle there, and gave a reputation to the district. The loss of all political consequence and the alleged resumption of most of the endowments have very much diminished the attraction of the site, but it still continues a place of learning and extensive repute.

In 1811, Lord Minto, then Governor-General, proposed to establish a Hindoo college at Nuddea and another in Tirhoot, and set apart funds for that purpose. The design, however, was finally abandoned in favour of that of forming a similar institution on a larger scale, the present Sanskrit College in Calcutta. In the course of the correspondence which took place between government and the Committee of Superintendence provisionally appointed for the proposed college at Nuddea, the Committee stated, under date 9th July, 1816, that there were then in Nuddea 46 schools kept and supported by the most learned and respectable pundits of the place, who invariably taught at their houses or in the *tols* attached to them, where the pupils were all lodged partly at their own expense and partly at the expense of their preceptors. The total number of pupils who were at that time so circumstanced amounted to about 380; their ages averaging between 25 and 35 years. Few, it was observed, commenced their studies until they had attained the age of 21 years, and they often pursued them for 15 years, when, having acquired a perfect knowledge of the shastra and all its arcana, they returned to their native homes and set up as pundits and teachers themselves.

In 1818, Mr Ward enumerated 31 schools of learning at Nuddea, containing in all 747 students, of whom not fewer than five studied under one teacher. So many as one hundred and twenty-five students are stated to have been receiving the instructions of one teacher at the same time, but the accuracy of Mr Ward's information in this particular may be doubted. The principal studies were logic and law, and there was only one school for general literature, one for astronomy, and one for grammar. The following are the details in Mr Ward's words:—

'*Nyaya Colleges*

Shivu-Nat'hu-Vidya-Vachusputee has one hundred and twenty-five students
Ramu-Lochunu-Nyayu-Vhooshunu, twenty ditto
Kashee-Nat'hu Turku-Chooramunee, thirty ditto
Ubhuyanundu-Turkalunkaru, twenty ditto
Ramu-Shurunu-Nyayu-Vagesshu, fifteen ditto
Bhola-Nat'hu-Shiromunee, twelve ditto
Radha-Nat'hu Turku-Punchanunu, ten ditto
Ramu-Mohunu-Vidya Vachusputee, twenty ditto
Shri Ramu-Turku-Bhooshunu, twenty ditto
Kalee-Kantu-Chooramunee, five ditto
Krishnu-Kantu-Vidya-Vageeshu, fifteen ditto
Turkalunkaru, fifteen ditto
Kalee-Prusunu, fifteen ditto
Madhubu-Turku-Sidhantu, twenty-five ditto
Kumula-Kantu-Turku-Chooramunee, twenty-five ditto
Eeshwuru-Turku-Bhooshunu, twenty ditto
Kantu-Vidyalunkaru, forty ditto

Law Colleges

Ramu-Nat'hu-Turku-Siddantu, forty students
Gunga-Dhuru-Shiromunee, twenty-five ditto

Devee-Turkalunkaru, twenty-five ditto
Mohunu-Vidya-Vachusuputee, twenty ditto
Gangolee-Tukalunkaru, ten ditto
Krishnu-Turku-Bhooshunu, ten ditto
Pranu-Krishnu-Turku-Vageeshu, five ditto
Poorohitu, five ditto
Kashee-Kantu-Turku-Chooramunee, thirty ditto
Kalee-Kantu-Turku-Punchanunu, twenty ditto
Gudadhura-Turku-Vageeshu, twenty ditto

College where the Poetical Works are read
Kalee-Kantu-Turku-Chooramunee, fifty students

Where the Astronomical Works are read
Gooroo-Prusadu-Siddhantu-Vageeshu, fifty students

Where the Grammar is read
Shumboo-Nat'hu Chooramunee, five students.'

In 1821, the junior Member and Secretary of the General Committee of Public Instruction, H.H. Wilson, Esquire, in prosecuting a special investigation on which he was deputed, collected at the same time some general information respecting the state of learning at Nuddea. At that period Nuddea contained about twenty-five establishments for study. These are called *tols*, and consist of a thatched chamber for the pundit and the class, and two or three ranges of mud-hovels in which the students reside. The pundit does not live on the spot, but comes to the *tol* every day on which study is lawful at an early hour and remains till sunset. The huts are built and kept in repair at his expense, and he not only gives instructions gratuitously but assists to feed and clothe his class, his means of so doing being derived from former grants by the rajah of Nuddea, and presents made to him by the zemindars in the neighbourhood at religious festivals, the value of which much depends on his celebrity as a teacher. The students are all full-grown men, some of them old men. The usual number in a *tol* is about twenty or twenty-five, but in some places, where the pundit is of high repute, there are from fifty to sixty. The whole number is said to be between 500 and 600. The greater proportion consists of natives of Bengal, but there are many from remote parts of India, especially from the south. There are some from Nepaul and Assam, and many from the eastern districts, especially Tirhoot. Few if any have means of subsistence of their own. Their dwelling they obtain from their teacher, and their clothes and food in presents from him and the shop-keepers and land-holders in the town or neighbourhood. At the principal festivals they disperse for a few days in quest of alms, when they collect enough to sustain them till the next interval of leisure. The chief study at Nuddea is *nyayu* or logic; there are also some establishments for tuition in law, chiefly in the works of Raghunandana, a celebrated Nuddea pundit, and in one or two places grammar is taught. Some of the students, particularly several from the Dekhin, speak Sanscrit with great fluency and correctness.

The account by Mr Wilson is the latest and probably the most correct of the state of learning at Nuddea. The variations in the number of colleges and students at the different periods are deserving of attention. According to the respective authorities there were in 1816 forty-six schools and 380 students; in 1818 thirty-one schools and 747 students; and in 1829 twenty-five schools, containing from 5 to 600 students. It would thus appear that, within the last twenty years, the number of schools has diminished, and the number of scholars has upon the whole increased. This would seem to support the inference that there is now, in the class from which students are drawn, and increased disposition to study Hindoo learning, accompanied by a diminished ability or inclination in the class by which the colleges are principally supported, to incur the expense of encouraging new *tols* proportioned to the increased number of students.

Several of those schools of Hindoo learning in Nuddea are supported or aided by small annual allowances from the British Government. Thus in 1813, Ramchandra Vidyalankara who enjoyed an annual allowance of rupees 71, in consideration of his keeping up a *chaupari* or seminary, died. Application was shortly afterwards made to the Collector of the district, and by him referred to the Revenue Board, for the assignment of his allowance to a native who claimed it as the heir of Ramchandra Vidyalankara, but the proofs of his right of succession or qualifications not being satisfactory, it was not granted to him. In 1818, Balanath Siromani preferred a claim to this allowance as the son of Ramchandra Vidyalankara and his successor in the *chaupari*. On reference of this claim to the Revenue Board, the Collector was ordered to ascertain whether Balanath Siromani did actually keep a seminary in Nuddea; and it appearing on enquiry that he kept a *chaupari* in which he educated eight pupils in the *tarka* or *nyayu shastra*, the government determined in June 1820, that the pension of rupees 71 should be continued to him and the arrears paid up.

In June, 1818, application was made to the Revenue Board through the Collector of Nuddea, on behalf of Sivnath Vidya-Vachaspati, for a pension or allowance of rupees 90 per annum, which had been enjoyed by his father Sukra Tarkavagis, in consideration of his maintaining a seminary in Nuddea. The Board ordered the continuance of the pension and the payment of arrears.

In November, 1819, an application was made through the Collector of Nuddea to the Board of Revenue, on behalf of Sriram Siromani, for a pension or allowance of rupees 36 per annum, in consideration of his keeping up a *chaupari* or seminary at Nuddea, which had been founded and endowed by the rajah of Nattore. It was in this case also ascertained that Sriram Siromani did keep up the seminary in which there were three pupils, and the allowance together with the arrears was accordingly ordered to be paid to him.

A similar decision was passed in 1819 in favour of Ramjaya Tarka-Bangka, confirming to him an annual allowance of rupees 62, in consideration of his continuing to maintain a seminary in Nuddea in which he educated five pupils.

In 1823, it was represented to the Board of Revenue that a Native College existed in the town of Nuddea in which Ramchandra Tarkavagis taught the puranas, on account of which he petitioned for the annual pension or allowance from government of sicca rupees 24, which had been enjoyed by his father while resident in Rajshahy, and which he solicited might be continued to him in Nuddea. The Revenue Board directed their nazir to make enquiry as to the facts stated, and to report the result. He accordingly reported that Ramchandra Tarkavagis did keep a seminary in the town of Nuddea in which he maintained and instructed in the shastras 31 students, of whose names a list was delivered in and that he had done so for nine years then last past. Under these circumstances, the Board recommended and the government determined that the pension should be continued to Ramchandra Tarkavagis, and the arrears which had accrued since the death of his father be paid to him.

In 1829, the Committee of Public Instruction received orders to examine and report upon a petition to government from certain students at Nuddea, claiming the restoration or continuance of an allowance amounting to 100 rupees per month. The Committee deputed their junior Member and Secretary, and ascertained that all those students who came from places more than three days' journey from Nuddea had hitherto depended very much upon this grant from government which gave them from twelve annas to one rupee a month, and nearly sufficed to procure them food. The amount of the grant that reached the students was in fact but 90 rupees, 10 being set apart for some ceremony. The number of foreign students was generally between 100 to 150, and there were about the latter number at that time at Nuddea awaiting the result of their petition. If not complied with, they would have found it necessary to quit the place. Mr Wilson made particular enquiry of the students with respect to the distribution of the allowance and entire satisfaction was uniformly expressed on this subject. A petty suraf or podar accompanied by one of their number is deputed to receive the allowance at the Collector's Treasury. On his return he divides it among the foreign students whose presence in the town is perfectly well known. The podar, whom Mr Wilson saw, keeps a shop for the sale of grain, and supplies the students with food, advancing them occasional maintenance on the credit of their monthly allowance. They are commonly in his debt, but he is too unimportant a personage, and the students are too numerous, and as Brahmans too influential, for him to practice any fraud upon them. The allowance, he has, no doubt, is fairly distributed; and although the value of the learning acquired at Nuddea may not be very highly estimated by Europeans, yet it is in great repute with the natives, and its encouragement even by the trifling sum awarded is a gracious and popular measure. There can be no doubt of its being a very essential benefit to those students who have no other fixed means of support. On Mr Wilson's report it was determined to continue the allowance of rupees 100 per month to the petitioners.

Little is said by any of the authorities to which I have referred of the schools of learning in this district beyond the town of Nuddea; but there can be no doubt that such exist at *Santipore*, *Kishnaghur*, and other places within the district. Mr Ward mentions transiently that, at *Koomaru Hutta* and *Bhatpara*, villages in this district, there are perhaps seven or eight such schools. At *Santipore* there was formerly a small Government endowment which appears to be at present in abeyance. In 1824, an application was made through the Collector of Nuddea to the Board of Revenue by Devi Prasad Nyayu Vachaspati Bhattacharyya, as the brother of Kali Prasad Tarkasiddhanta Bhattacharyya, who had died in the preceding year, for an annual allowance or pension of sicca rupees 156-11-10, in consideration to his keeping a seminary in the town of *Santipore*.

Enquiries were made as to the character of the deceased who is stated to have been a pundit of great ability, having when he died about 10 students under tuition. It also appeared by the evidence produced on the occasion that the brother and present claimant assisted the deceased in the tuition of his students who resided with him, and that they read the *dharma shastra* or works on law. The information thus produced not seeming to the Board of Revenue satisfactory, the Collector was directed to make further enquiries respecting the origin and the extent of the endowment and the service rendered, but his final report does not appear on the records.

I have already mentioned the nature of the report, made by the Judge and Magistrate of this district in 1801, that there were no seminaries within the district in which either the Hindoo or Mahomedan law was taught, and I have met with no direct evidence to establish the existence of any Mahomedan institutions. With a considerable proportion, however, of Mahomedan population it seems exceedingly improbable that they should be entirely destitute of such institutions of education as are found to exist in other districts.

DACCA & JALALPUR: (p.85)

Hamilton speaks of certain schools in the district in which the principles or rather the forms of Hindoo religion and law are taught, but I have not been able to trace any further details respecting them. I find not the remotest reference to Mahomedan schools in a district remarkable for a large proportion of Moslem inhabitants.

The public functionaries in 1823 reported to the General Committee that no grants or endowments of any description for the purpose of education were known to exist in the district.

BACKERGUNGE: (p.86)

I have not been able to obtain any information respecting indigenous schools, either elementary or learned, in this district, and I can only infer from the known state of education in other districts that here also such institutions must exist, although they have not in any way come under public notice. The Collector in 1823 reported that no endowments or funds for the purposes of education existed in the district.

CHITTAGONG: (pp.88-89)

The official report of 1824 makes no mention of indigenous schools of learning, and it is probable that few exist in this district. It is, however, stated that there is much land that has been appropriated to charitable purposes, some for churches and some for the benefit of the poor, but no endowments were known at that time to exist for the benefit of education.

In 1827, the Collector of the district was directed to make enquiries respecting a native institution supported by endowment, and to report the result to government. He reported that Meer Hinja had bequeathed lands for the endowment of a *madrasa*, and that they then yielded for the purpose of education not more than rupees 1,570 per annum, two-thirds of the endowment having been judicially assigned to the founder's children in the year 1790; that with the remaining one-third the then incumbent Maulavi Ali Machtulul Khan Kemoun professed himself unable to keep up the institution on its then present footing, which provided for the instruction of 50 students and for the support of three teachers, one of Arabic and two of Persian; that the number of students originally contemplated was 150; and that the buildings consisted of a small mosque in good order and two low ranges of attached houses for the dwelling of the master and disciples, which were of little value. The Collector suggested that the lands would realise twice their present rental, if put up to the highest bidder by order of government; and submitted that they should be so re-let, and the proceeds paid to the Maulavi in monthly installments, who in return should periodically submit his accounts and a report of the state of the institution to the Board of Revenue for the information of government. The Governor-General in Council approved this suggestion and it was ordered accordingly.

TIPERA: (p.91)

I have no information regarding either common schools or schools of learning in this district. Hamilton states, perhaps too positively, that there are not any regular schools or seminaries where the Hindoo and Mahomedan laws and religion are taught. In reply to enquiries made by the General Committee the local agents of government stated in 1823 that they could not discover that any endowments or funds of a public nature exist in the district, or that any grants have ever been made applicable to the purpose of public instruction.

MYMUNSING: (p.92)

Hamilton states that there are not any regular seminaries in this district for teaching the Mahomedan law, but that there are two or three schools in each pergunnah for instruction in Hindoo learning. The district is divided into nineteen pergunnahs and six tuppas, in all twenty-five local sub-divisions, which will give from 50 to 60 schools of Hindoo learning in the district. The scholars are taught gratuitously, it being deemed disgraceful to receive money for instruction.

Indigenous schools for learning imply the existence of indigenous elementary schools, but I find no mention of them in any authority to which I have referred.

The alleged non-existence of Mahomedan schools in a district in which the proportion of Mahomedans to Hindoos is as five to two is incredible.

SYLHET: (p.93)

The information respecting the state of education in this district is exceedingly scanty. Hamilton states that there are no regular schools and seminaries for teaching the Hindoo or Mahomedan law, but that in different places there are private schools where boys are taught to read and write. Of Mymunsing the reverse was stated, that it had schools of learning, but nothing was said of elementary schools. It is probable that in Sylhet the former are to be found as well as the latter, although neither may be numerous or very efficient.

MOORSHEDABAD: (pp.94-96)

In 1801 there was said to be only one school in the district for instruction in the Mahomedan law, while there were twenty for instruction in the Hindoo laws and customs. It seems very probable that the number both of Hindoo and Mahomedan schools of learning was then and still is much greater.

In December, 1818, the Collector of Moorshedabad forwarded to the Board of Revenue the petition of one Kali Kanth Sarma, praying for the continuance to him of a pension of five rupees per month, which had been granted to his father, Jaya Ram Nyaya Panchanan, by the late Maha Rani Bhawani, former zemindar of *Chucklah Rajshahy*, for the support of a Hindoo college at that place. The Collector accompanied the petition by a statement that the pension had, as represented, been enjoyed by the father of the petitioner and confirmed to him by the government on the report of the Collector in 1796, and that the petitioner was of good character and qualified for the superintendence of the college. The Revenue Board on forwarding this petition and the Collector's letter to the government observed that the pension had in fact lapsed to the government in 1811, the petitioner not being then qualified to discharge the duties of the office, but that it was intended fully to ascertain his fitness for the office and in the event of his competency to give it to him. 'On general principles,' the Board added, 'we entertain the opinion that pensions granted for the maintenance of public institutions for education and instruction should not be resumed so long as they shall be appropriated *bona fide* for the purpose for which they were assigned; and we observe on reference to our proceedings that government has generally been pleased to continue pensions for similar purposes, the Board having previously ascertained the qualifications of the persons in whose favour they have been granted and we are accordingly induced to recommend the present claim to the favourable consideration of his Lordship in Council.' On this recommendation the government confirmed Kali Kanth Sarma in the receipt of this pension; and upon his decease in 1821 it was by the same authority conferred on his brother Chandrasiva Nyayalankara whose claim was undisputed and who then maintained seven students, five of them resident in his house.

In July, 1822, the Collector of Moorshedabad forwarded to the Revenue Board a petition from Kishanath Nyaya Panchanand, the son of Ramkishore Sarma, reporting the death of his father, and praying the transfer and continuance to himself of a monthly pension of five rupees which had been granted in 1793 for the support of a Hindoo seminary at *Vyspur* near *Colapur*. The Collector reported the petitioner to be the heir and rightful claimant of the pension and well qualified for the performance of the duties of the school. Under these circumstances the transfer of the pension from the name of Ramkishore Sarma to his son Kishanath Nyaya Panchanand was authorised.

BEERBHOOM: (pp.98-100)

I find no account of the state of indigenous education in this district. Hamilton is silent on the subject, and in reply to inquiries made by the General Committee in 1823, the local Agent of Government stated that there were no seminaries for the instruction of youth in the district, either public or private, and, as I suppose must be understood, either elementary or learned. If, as I suspect, this statement is incorrect, it is the more extraordinary, because the agent appears to have taken a great deal of trouble to collect information regarding the means existing in the district supposed to be applicable to the encouragement of education. From the analogy of other neighbouring districts, it seems incredible that there should be no schools of any kind amongst a population in which there is a proportion of thirty Hindoos to one Mahomedan.

In 1820, a Hindoo named Sarbanand, who claimed succession to the office of ojha or high-priest of the temple of *Baidyanath* already mentioned, made an offer to the government through the local agent to give 5,000 rupees as an endowment for a Native school in the district on condition that his claim to the succession of the ojhaship might be sanctioned and established by the authority of government. From a notice of this transaction contained in the records of the General Committee, it would appear that he actually sent the money to the Collector's office, and that in addition to the establishment of a school he wished it to be, in part, expended on the excavation of a tank at Soory, the chief town of the district. The offer was declined, and Sarbanand informed that he must abide the regular adjudication of the law courts on his claim, which proved unfavourable.

The acting Agent and Collector in Beerbhoom in 1823 seems to have considered that the funds of the temple were liable to be applied to the establishment of public institutions, but it does not appear on what grounds this opinion was formed. According to one account the collections of the temple average 30,000 rupees per annum, the amount depending on the number and liberality of the pilgrims. According to an official estimate made in 1822, the resources of the temple were supposed to be 1,50,000 rupees annually. A specific fact stated is that in two months the collections amounted to 15,000 rupees, but it is not said whether the two months were in the season of the year when the temple is most frequented. The present appropriation of the revenue after providing, I conclude, for the current expenses of the temple, is to the support of religious mendicants and devotees.

The acting Agent and Collector also submitted two statements of the quantity of land dedicated to various religious purposes, expressing at the same time the opinion that the produce of these endowments is generally estranged from the purposes to which it was originally devoted, and enjoyed by persons who have no claim to it. He seems to have considered that these endowments also were applicable to purposes of education but the reasons of the opinion are not given. The statements were prepared from the public registries of land and I subjoin them entire, noticing here only their general results. These are that in twenty-two pergunnahs there are 8,348 beeghas, besides 39 separate mouzahs or villages of *dewottur* lands; 16,331 beeghas of *nazar* lands; 5,086 beeghas of *chiraghi* lands and 1,015 beeghas of *pirottur* lands. In fifteen other pergunnahs that had been then recently transferred from the district of Moorshedabad to that of Beerbhoom, there are 1,934 beeghas of *dewottur* and 162 of *pirottur* lands, making the whole amount 32,877 beeghas of land, besides 39 villages. I have added to the statements a brief explanation of the distinctive terms employed to describe the different sorts of endowed lands; and I have recorded these endowments in this place because they were in some way connected in the mind of the acting Agent and Collector with the means existing in the district for the promotion of education; but I would not be understood to express a concurrence in the opinion, if it was entertained, that their application to such a purpose could be rendered legally obligatory. As far as I can ascertain from the terms employed to describe them, they are religious endowments. With the voluntary consent of the holders, they are, as I understand, capable of being applied to promote education when viewed as a religious duty; but without that consent it would be unjust to employ them for such a purpose, and it would also be imprudent by the employment of questionable means in pursuit of a great public object, such as national education, to rouse the religious feelings of the country against it.

RAJSHAHY: (pp.103-104)

There is no doubt that in this district there are several schools of Hindoo learning, but I find no mention of any of them except two which are supported by an allowance from government. In June, 1813, the Collector of Rajshahy forwarded to the Revenue Board a petition from Kassessur Bachusputy, Govindram Sirhat, and Hurram Surma Buttacharjee, stating that their father had received from Rani Bhawani an allowance of 90 rupees per annum for the support of a college, which allowance on the decease of their father had been continued to their elder brother till his decease; and that since the date of that event they had kept up the establishment, and therefore, prayed that the allowance might be continued to them.

The Collector corroborated the averments in this petition, observing that Kassessur discharged the duties of one college in the town of Nattore, and that his two brothers had established another in the Mofussil.

The Revenue Board, in forwarding the Collector's letter and the petition to government, observed that the pension had been conferred by the authority of government on the late Chundar Sikar Turkanshes for his life, on a representation from the Collector that he had no other means of subsistence, and was properly qualified and taught the sciences gratis; that he was attended by many students; was the only capable teacher in Nattore; and that the continuance of his pension might be deemed a public benefit.

The Revenue Board further submitted that, as it appeared the brothers maintained the institutions of their father in full efficiency, the pension might be continued to them and their heirs in perpetuity, on the condition of their continuing to uphold these establishments under the supervision of the local agents of the British Government. The Bengal Government fully acquiesced in this suggestion, and sanctioned the payment of the allowance of 90 rupees per annum on the condition stated by the Revenue Board.

RANGPUR: (pp.106-107)

Hamilton on the state of learning in this district says that a few Brahmans have acquired sufficient skill in astronomy to construct an almanac, and five or six Pundits instruct youth in a science named *Agam*, or magic, comprehending astrology and chiromancy. The latter is reckoned a higher science than the calculation of nativities, and is monopolised by the sacred order. The Mahomedans, he adds, having no wise men of their own, consult those of the Hindoos. This account of the state of learning is very unfavourable and is not quite correct. The Agama shastra does not merely teach astrology and chiromancy, but is also occupied with the ritual observances of modern Hindooism, and it is not the only branch of learning taught in the schools.

From details furnished by the canoongoes, it appears that in nine sub-divisions of the district there are 41 schools of Sanskrit learning containing each from 5 to 25 scholars, who are taught grammar, general literature, rhetoric, logic, law, the mythological poems, and astronomy, as well as the Agama shastra. The students often prosecute their studies till they are thirty-five and even forty years of age, and are almost invariably the sons of Brahmans. They are supported in various ways—first, by the liberality of those learned men who instruct them; secondly, by the presents they receive on occasions of invitation to religious festivals and domestic celebrations; thirdly, by their relations at home; and fourthly, by begging, recourse being had to one means when others fail. The instructors are enabled to assist their pupils, sometimes from their own independent means, sometimes from the occasional gifts they receive from others, and sometimes from the produce of small endowments. At least ten are stated to have small grants of land for the support of learning, one of these consisting of 25 beeghas of Brahmottur land, and another of 176 beeghas of Lakhiraj land. The quantity of land in the other cases in not mentioned, but it is not stated to be generally Brahmottur.

In one instance it is stated that the owner of the estate on which the school is situated gave the Pundit a yearly present of 32 rupees, and in another instance a monthly allowance of 5 or 8 rupees. In a third instance the Pundit of the school lived on his patrimony, and at the same time acted as family priest to the zemindar.

DINAJPUR: (pp.112-114)

Of the twenty-two sub-divisions of the district, there are fifteen without any schools of learning, and the remaining seven have only sixteen schools. Most of the teachers possess lands which enable them to provide for their own subsistence as well as that of their pupils, and they receive gifts from all Hindoos of any distinction. There is, however, no necessity for a person who holds these lands to instruct youth, and when the celebrity of a teacher has procured large grants of land, his heirs, although they continue to enjoy the estate, are not bound to teach. They may retain the high title of Pundit without devoting themselves to the business of instruction or they may even betake themselves to the degrading affairs of the world without forfeiting the property. Very much, however, to the credit of the Brahmans, such a neglect is not usual, and one son of the family continues generally to profess the instruction of youth. If there are other sons they follow their natural inclination. With such a system, however liberal it may be in appearance, and to whatever merit the individual professors are justly entitled, it must be evident that the work of education will go on but slowly. It is even to be feared that it would altogether stop, were it not for the charity which usually follows considerable reputation as a teacher.

Students usually commence the study of the Sanskrit language about twelve years of age, after they have been instructed in the knowledge taught in the elementary schools. The principal studies are, as elsewhere in Bengal, grammar, law, and metaphysics and less frequently the philosophical theology of the Veds, the ritual of modern Hindooism, and astronomy, to which may be added medicine or rather magic.

The Vaidyas or medical tribe, and even some rich Kayasthas, are permitted to study such portions of Sanskrit literature as have been composed by wise men; but they are excluded from whatever is supposed to be of divine origin and authority. Dr Buchanan remarks that the exclusiveness with which Sanskrit learning has been appropriated to the sacred tribe may have tended to increase the general ignorance; but that there can be no doubt that those who possess it enjoy very considerable advantages over their countrymen. The Brahmans generally speaking have an intelligence and acuteness far beyond other Hindoos; and he further thinks that they are subject to fewer vices, and that those persons will be found to approach nearest their good qualities who are admitted even to the porch of science. Here as well as elsewhere it will be found that although intellectual cultivation and moral excellence are neither identical nor always concomitant yet the addiction to intellectual pursuits and enjoyments, *coeteries paribus*, leads to the elevation and improvement of the moral character. Amongst the multiplied means, therefore, which civilisation and philanthropy will suggest for the reformation of a whole people, let us not altogether neglect one of which, however unfamiliar it may be to our conceptions, experience has established the utility, and which has in fact been the salt of the earth, preserving the country for centuries past amid general debasement and corruption from total ignorance and depravation.

It does not appear that there is any school in which Arabic or the sciences of the Mahomedans are taught,—a remarkable fact respecting a populous district in which so large a proportion of the inhabitants is Mahomedan.

Although some of the Mahomedan priests can read the portions of the Koran that are appropriated for certain ceremonies, yet Dr Buchanan heard a general complaint from the kazis that few understood a single word of that language and that the greater part had merely learned the passages by rote so as to enable them to perform the ceremonies.

PURNEAH: (pp.119-122)

Throughout the district Dr Buchanan reckoned 119 schools of this description, possessing various degrees of respectability. The subjects taught are grammar, logic, and law, astronomy and the modern ritual, the teachers of the two latter, although classed as learned men, being less respected than the former. Some even of the most respected class were reputed to possess but superficial acquirements. The students are said to be inattentive and to take long vacations. About as many students go to other districts from Purneah as are attracted to it from other quarters. No Pundit had above eight scholars altogether which is less than two for each teacher. The Pundits in the district, including the professional teachers, amounted to 247, but the claims of many to the title were deemed questionable. A great many other persons to the number of 1,800 or 1,900 assume the title of Pundit but are distinguished from the former by the name of dasakarmas. They officiate as priests to the Sudras, and towards the West they act in the same capacity for very low castes; but in those parts few can read or write any language. They understand, however, the poetical legends when read, have acquired some knowledge of the marvels they contain, have committed to memory the necessary forms of prayer, and can perform the usual ceremonies. In the eastern parts of the district, where the manners of Bengal prevail, there is a class of Brahmans who officiate for the lower castes of Sudras, and their knowledge is nearly on a level with that of the dasakarmas. The dasakarmas, who act as priests for the higher order of Sudras, can read and are able to pray from a book. A good many of them have studied for a year or two under a learned teacher, and have some slight knowledge of grammar and law. Some of them can understand a part of the ceremonies which they read, and some also can note nativities. A very few of the medical tribe in the south east corner of the district have studied the sacred tongue.

It is remarked that science is almost entirely confined to two of the corners of the district, the old territory called Gour, and the small portion situated to the west of the Kosi. In the former case, the effect is attributed to the care of a native public officer who had several estates in that vicinity, and still retained a part at the time of Dr Buchanan's investigation. He appointed six pundits to teach, and gave them an allowance besides the lands which they possess. They are reckoned higher in rank than the other professors in the vicinity, and are called rajpundits. The thirty-one pundits in that quarter addict themselves chiefly to the study of grammar, law, and the mythological poems. Logic and metaphysics are neglected, as well as astronomy and magic. In the western side of the district there are no less than thirty-three teachers within a small space and there astrology as well as metaphysics is studied; mythological poems are not much read and magic is not known. The number of the teachers is owing to the patronage of the Rajahs of Darbhanga to whom the greater part of the lands belong; but their patronage did not appear to be very efficacious, for, of the thirty-three Pundits in the whole territory west of the Kosi, only eight were considered well-versed in the sciences and learning, which they professed to teach, viz., one in logic and metaphysics, three in grammar, and four in astrology. All these are Mithila Pundits.

Dr Buchanan has communicated some details of the proportions in which the different branches of learning were studied. Eleven Pundits taught metaphysics; of these six confined themselves entirely to that branch; one also taught grammar, another added law; two others with law also read the *Sri bhagvut*; and one man included the whole of these within the range of his instructions. There were no less than thirty-one teachers of the law, of whom one only confined himself to that pursuit; twenty of them taught one additional science; and of these nineteen taught grammar, and one logic and metaphysics; eight taught two additional branches, of whom three taught grammar and explained the *bhagvut*, two taught logic and metaphysics and also explained the *bhagvut*, two taught grammar and the modern ritual, and one taught grammar and astronomy. Two taught three other branches, one explaining grammar, logic and the mythological poems, and the other substituting the modern ritual for logic. Of eleven teachers of the astronomical works, ten professed nothing else. Of seven persons who taught the modern ritual, one only confined himself to it, two professed the law, three taught grammar and the metaphysical poems, and six were proficients in grammar. Only five Pundits limited themselves to the teaching of grammar.

With regard to the state of medical education and practice, Dr Buchanan ascertained that there were twenty-six Bengalee practitioners who used incantations (muntras); thirty-seven who rejected them and administered medicine; and five Mahomedan physicians who seemed to be little superior to the Hindoos. The doctrines of both are nearly the same, and seem to be founded on the school of Galen. Those who practice at large make from 10 to 20 rupees a month. They do not keep their recipes or doctrines secret, but seemed to practice in a liberal manner, although without having gained a high reputation. A considerable number are servants, and attend on wealthy families for a monthly pension. Many of them cannot read. There is another class of medical practitioners who reject incantations and exhibit herbs. They have no books, and the greater part cannot read the vulgar tongue. They have been early instructed in the use of certain herbs in certain diseases. Dr Buchanan heard of about 450 of them, but they seemed to be chiefly confined to the Hindoo divisions of the district, and they are held in very low estimation. There is also a class of persons who profess to treat sores, but they are totally illiterate and destitute of science, nor do they perform any operation. They deal chiefly in oils. The only practitioner in surgery was an old woman, who had become reputed for extracting the stone from the bladder, which she performed after the manner of the ancients.

According to Dr Buchanan the science of the Arabs has been exceedingly neglected in this district, so that very few even of the kazis are supposed to understand the Koran or any Arabic work on grammar, law or metaphysics. He did not hear of one man who attempted to teach any of these branches of learning, and he expresses a doubt whether even one man employed in administering the Mohammedan law and born in the district was tolerably well-versed in the subject, or so well informed or liberally educated as the common attornies in a country town of England.

III

W. ADAM ON STATE OF NATIVE MEDICAL PRACTICE (pp.195-200)

The state of Native Medical Practice in the (Rajshahy) district is so intimately connected with the welfare of the people that it could not be wholly overlooked; and as the few facts that I have collected tend additionally to illustrate their character and condition, it would be improper to omit them. They are submitted with deference to those who may have made professional inquiries, and can form a professional judgment on the subject.

The number of those, who may be called general practitioners and who rank highest in the native medical profession in Nattore is 123, of whom 89 are Hindus and 34 are Mahomedans. The Medical School at Vaidya Belghariya possesses considerable interest, since it is, as far as I can ascertain, the only institution of the kind in the district, and the number of such institutions throughout Bengal is, I believe, very limited. The two medical teachers of this school are employed as domestic physicians by two wealthy families, and they have each also a respectable general practice. As a domestic physician, the junior teacher has a fixed salary of twenty-five rupees a month; while the senior teacher in the same capacity has only fifteen rupees a month, and that only as long his attendance may be required during periods of sickness in the family that employs him. I have spoken of that family as wealthy, but it is only comparatively so being in very reduced circumstances; and to that cause rather than to the low estimation in which the physician is held, we must ascribe the scant remuneration he receives. At another place, Hajra Nattore, No.26, there are three educated Hindu practitioners, all three Brahmans and brothers and more or less acquainted with Sanscrit, having acquired the grammar of the language at Bejpara Amhatti, and subsequently applied their knowledge of it to the study of the medical works in that language. The eldest has practised since he was eighteen, and he is now sixty-two years of age, and employs his leisure in instructing his two nephews. On an average of the year he estimates the income derived from his practice at five rupees a month, while one of his brothers who is in less repute estimates his own income at three rupees. At a third place, Haridev Khalasi, No.100, there are four educated Hindu practitioners, three of whom appeared to be in considerable repute for skill and learning. They were all absent, and I had not an opportunity of conversing with them; but their neighbours and friends estimated their monthly professional income at eight, ten, and twelve rupees, respectively. There are at most two or three other educated Hindu physicians in Nattore, and all the rest are professionally uneducated, the only knowledge they possess of medicine being derived from Bengali translations of Sanscrit works which describe the symptoms of the principal diseases and prescribe the articles of the native materia medica that should be employed for their cure, and the proportions in which they should be compounded. I have not been able to ascertain that there is a single educated Musalman physician in Nattore, and consequently the 34 Mahomedan practitioners I have mentioned, rank with the uneducated class of Hindu practitioners, deriving all their knowledge of medicine from Bengali translations of Sanscrit works to the prescriptions of which they servilely adhere.

The only difference that I have been able to discover between the educated and uneducated classes of native practitioners is that the former prescribe with greater confidence and precision from the original authorities, and the latter with greater doubt and uncertainty from loose and imperfect translations. The mode of treatment is substantially the same, and in each case is fixed and invariable. Great attention is paid to the symptoms of disease, a careful and strict comparison being made between the descriptions of the supposed disease in the standard medical works and the actual symptoms in the case of the patient. When the identity is satisfactorily ascertained, there is then no doubt as to the practice to be adopted, for each disease has its peculiar remedy in the works of established repute, and to depart from their prescriptions would be an act of unheard of presumption. If, with a general resemblance, there should be some slight difference of symptoms, a corresponding departure from the authorised prescription is permitted, but only as regards the medium or vehicle through which it is administered. The medicines administered are both vegetable and mineral. The former are divided into those which are employed in the crude state, as barks, leaves, common or wild roots, and fruits etc.; and those which are sold in the druggist's shop as camphor, cloves, cardamums, etc. They are administered either externally or in the forms of pill, powder, electuary, and decoction.

The preceding class of practitioners consists of individuals who at best know nothing of medicine as a science, but practise it as an art according to a prescribed routine, and it may well be supposed that many, especially of the uneducated class, are nothing but quacks. Still as a class they rank higher both in general estimation and in usefulness than the village doctors. Of these there are not fewer than 205 in Nattore. They have not the least semblance of medical knowledge, and they in general limit their prescriptions to the simplest vegetable preparations, either preceded or followed by the pronouncing of an incantation and by striking and blowing upon the body. Their number proves that they are in repute in the villages; and the fact is ascribable to the influence which they exercise upon the minds of the superstitious by their incantations. The village doctors are both men and women; and most of them are Mahomedans, like the class to which they principally address themselves.

The smallpox inoculators in point of information and respectability come next to the class of general practitioners. There are 21 of them in Nattore, for the most part Brahmans, but uninstructed and ignorant, exercising merely the manual art of inoculation. One man sometimes inoculates from 100 to 500 children in a day, receiving for each operation a fixed rate of payment varying from one to two annas; the less amount if the number of children is great, the greater amount if the number is small. The cow-pox has not, I believe, been introduced into this district amongst the natives, except at the head station. Elsewhere the smallpox inoculators have been found its opponents, but, as far as I can understand, their opposition does not arise from interested motives, for the cow-pox inoculation would give them as much labour and profit as they now have. Their opposition arises, I am assured, from the prejudice against using *cow-pox*. The veneration in which the cow is held is well-known, and they fear to participate in a practice which seems to be founded on some injury done to that animal when the matter was originally extracted. The spread of the cow-pox would probably be most effectually accomplished by the employment of Mussalman inoculators whose success might in due time convince the Brahman inoculators of their mistake.

Midwives are another class of practitioners that may be noticed, although it has been denied that Hindus have any. An eminent London physician, in his examination before the Medical Committee of the House of Commons, is stated to have affirmed that the inhabitants of China have no women-midwives, and no practitioners in midwifery at all. 'Of course,' it is added, 'the African nations and the Hindus are the same.' I enquired and noted the number of women-midwives (there is not a man-midwife in the country) in the villages of Nattore, and find that they amount to 297. They are no doubt sufficiently ignorant, as are probably the majority of women-midwives at home.

Still lower than the village doctors there is a numerous class of pretenders who go under the general name of conjurors or charmers. The largest division of this class are the snake-conjurors, their number in the single police sub-division of Nattore being not less than 722. There are few villages without one, and in some villages there are as many as ten. I could, if it were required, indicate the villages and the number in each; but instead of incumbering Table I with such details, I have judged it sufficient to state the total number in this place. They profess to cure the bites of poisonous snakes by incantations or charms. In this districts, particularly during the rainy season, snakes are numerous and excite much terror among the villagers. Nearly the whole district forming, it is believed, an old bed of the Ganges, lies very low; and the rapid increase of the waters during the rainy season drives the land-snakes from their holes, and they seek refuge in the houses of the inhabitants, who hope to obtain relief from their bites by the incantations of the conjurors. These take nothing for the performance of their rites, or for the cures they pretend to have performed. All is pecuniarily gratuitous to the individual but they have substantial advantages which enable them to be thus liberal. When the inhabitants of a village hitherto without a conjuror think that they can afford to have one, they invite a professor of the art from a neighbouring village where there happens to be one to spare, and give him a piece of land and various privileges and immunities. He possesses great influence over the inhabitants. If a quarrel takes place, his interference will quell it sooner than that of any one else; and when he requires the aid of his neighbours in cultivating his plot of ground or in reaping its produce, it is always more readily given to him than to others. The art is not hereditary in a family or peculiar to any caste. One I met with was a boatman, another a chowkidar and a third a weaver. Whoever learns the charm may practise it, but it is believed that those who practise it most successfully are 'to the manner born', that is, who have been born under a favourable conjunction of the planets. Every conjuror seems to have a separate charm, for I have found no two the same. They do not object to repeat it merely for the gratification of curiosity, and they allow it to be taken down in writing. Neither do they appear to have any mutual jealously, each readily allowing the virtue of other incantations than his own.

Sometimes the pretended curer of snake-bites by charms professes also to possess the power of expelling demons, and in other cases the expeller of demons disclaims being a snake-conjuror. Demon-conjurors are not numerous in Nattore; and tiger-conjurors who profess to cure the bites of tigers, although scarcely heard of in that thana, are more numerous in those parts of the district where there is a considerable space covered by jungle inhabited by wild beasts. Distinct from these three kinds of conjurors and called by a different name is a class of *gifted (guni)* persons who are believed to possess the power of preventing the fall of hail which would destroy or injure the crops of the villages. For this purpose when there is a prospect of a hailstorm, one of them goes out into the fields belonging to the villages with a trident and a buffalo's horn. The trident is fixed in the ground and the Gifted makes a wide circuit around it, running naked blowing the horn, and pronouncing incantations. It is the firm belief of the villagers that their crops are by this means protected from hailstorm. Both men and women practise this business. There are about a dozen in Nattore, and they are provided for in the same way as the conjurors.

Some of these details may appear, and in themselves probably are, unimportant, but they help to afford an insight into the character of the humblest classes of native society who constitute the great mass of the people, and whose happiness and improvement are identical with the prosperity of the country; and although they exhibit the proofs of a most imbecile superstition, yet it is superstition which does not appear to have its origin or support in vice or depravity, but in a childish ignorance of the common laws of nature which the most imperfect education or the most limited mental cultivation would remove. These superstitions are neither Hindu nor Mahomedan, being equally repudiated by the educated portions of both classes of religionists. They are probably antecedent to both systems of faith and have been handed down from time immemorial as a local and hereditary religion of the cultivators of the soil, who, amid the extraordinary changes which in successive ages and under successive races of conquerors this country has undergone, appear always to have been left in the same degraded and prostrate condition in which they are now found.

(c) BOOKS USED IN ELEMENTARY SCHOOLS

Abbreviations: Murshidabad = MD; South Beerbhoom = BM;
S. Behar = SB; Burdwan = Bun; Tirhoot = TT

Annexure E

History of Education in the Panjab since Annexation and in 1882

LEITNER ON INDIGENOUS EDUCATION IN THE PANJAB (EXTRACTS)

GENERAL:

I am about to relate—I hope without extenuation or malice—the history of the contact of a form of European with one of Asiatic civilisation; how, in spite of the best intentions, the most public-spirited officers, and a generous Government that had the benefit of the traditions of other provinces, the true education of the Panjab was crippled, checked, and is nearly destroyed; how opportunities for its healthy revival and development were either neglected or perverted; and how, far beyond the blame attaching to individuals, our system stands convicted or worse than official failure. Whether it is possible to rouse to renewed exertion, on behalf of its own education, the most loyal population that has ever been disappointed, is a question which the following pages will only partially attempt to answer. Much will of course, depend on the wise adaptation of the noble principle just propounded—of 'local self-government'—to a department of the Administration,—that of education,—in which, above all others, it can be introduced with perfect safety and the greatest political advantage.

Respect for learning has always been the redeeming feature of 'the East'. To this the Panjab has formed no exception. Torn by invasion and civil war, it ever preserved and added to educational endowments. The most unscrupulous chief, the avaricious money-lender, and even the freebooter, vied with the small landowner in making peace with his conscience by founding schools and rewarding the learned. There was not a mosque, a temple, a dharmasala that had not a school attached to it, to which the youth flocked chiefly for religious education. There were few wealthy men who did not entertain a Maulvi, Pandit or Guru, to teach their sons, and along with them the sons of friends and dependents. There were also thousands of secular schools, frequented alike by Mahomedans, Hindus and Sikhs, in which Persian or Lunde was taught. There were hundreds of learned men who gratuitously taught their co-religionists, and sometimes all-comers, for the sake of God-'Lillah'. There was not a single villager who did not take a pride in devoting a portion of his produce to a respected teacher. In respectable Mahomedan families husbands taught their wives, and these their children; nor did the Sikhs prove in that respect to be unworthy of their appellation of 'learners and disciples'. In short, the lowest computation gives us 3,30,000 pupils (against little more than 1,90,000 at present) in the schools of the various denominations who were acquainted with reading, writing, and some method of computation; whilst thousands of them belonged to Arabic and Sanskrit colleges, in which Oriental Literature and systems of Oriental Law, Logic, Philosophy, and Medicine were taught to the highest standards. Tens of thousands also acquired a proficiency in Persian, which is now rarely reached in Government and aided schools or colleges. Through all schools there breathed a spirit of devotion to education for its own sake and for its influence on the character and on religious culture; whilst even the sons of Banyas who merely learnt what they absolutely required in order to gain a livelihood looked with respect, amounting to adoration, on their humble Pandhas, who had taught them the elements of *two 'Rs'*.

We have changed all this. The annexation disturbed the minds of believers in Providence, and all that was respectable kept, as much as possible, aloof from the invader,—just as the best Englishman would not be the first to seek the favour of a foreign conqueror.

CLASSIFICATION OF INDIGENOUS SCHOOLS

I. SIKH INDIGENOUS EDUCATION
    1. Gurmukhi Schools

II. MOHAMMEDAN INDIGENOUS EDUCATION
    2. Maktabs
    3. Madrasas, religious and secular
    4. Koran Schools.

III. HINDU INDIGENOUS EDUCATION
    5. Chatsalas (for the trading community)
    6. Patshalas (religious)

7. Patshalas (semi-religious)
8. Secular Schools of various kinds and grades

IV. MIXED INDIGENOUS EDUCATION
  9. Persian Schools
  10. Vernacular Schools
  11. Anglo-Vernacular Schools

V. FEMALE INDIGENOUS EDUCATION
  12. (a) Female Schools for Sikh girls
    (b) -do- Mohammedan girls
    (c) Instruction at Hindu homes

With a more minute subdivision the indigenous schools might have to be classified as follows:-

I. MAKTABS OR MADRASAS
  1. Arabic Schools and Colleges (of various grades and specialities)
  2. Perso-Arabic Schools and Colleges (of various grades and specialities)
  3. Koran Schools (where merely or chiefly the Koran is read)
  4. Perso-Koran Schools
  5. Koran-Arabic Schools
  6. Perso-Koran-Arabic Schools
  7. Persian Schools
  8. Persian-Urdu Schools
  9. Persian-Urdu-Arabic Schools
  10. Arabic Medical Schools
  11. Perso-Arabic Medical Schools

II. GURMUKHI SCHOOLS
  12. Gurmukhi Schools
  13. Gurmukhi and Lande Schools

III. MAHAJANI SCHOOLS
  14. Lande Schools of different kinds (Chatsalas)
  15. Nagari-Lande Schools (Chatsalas)
  16. Perso-Lande Schools

IV. PATSHALAS
  17. Nagari-Sanscrit Schools
  18. Sanscrit religious Schools

19. Sanscrit secular literary Schools (cultivating various branches)
20. Sanscrit semi-secular Schools (cultivating various branches)
21. Sanscrit Medical Schools (Chiefly)
22. Hindi-Sanscrit Schools
23. Sanscrit astrological or astronomical Schools (Chiefly)

V. FEMALE INDIGENOUS SCHOOLS
(classified as above)

LIST OF SANSCRIT BOOKS USED

Balbodh
Akshar dipika

I. GRAMMAR

Saraswat
Chandrika
Laghu Kaumudi
Kaumudi
Shekar
Manorama
Bhashya
Paniniya Vyakaran
Siddhant Kaumudi
Prakrita Prakasa

II. LEXICOLOGY

Amar Kosh
Halayudh
Malini Kosh

III. POETRY, THE DRAMA AND RELIGIOUS HISTORY

Raghu Vans
Megh Duta
Magh
Kirat Arjun
Ramayan
Sri Mad Bhagwat
and other Puranas
Mahabharat
Venisanhara
Sakuntala
Naishadha Charita
Mrichhakatika
Kumara Sambhava

IV. RHETORIC

Kavya Dipik
Sahitya Darpana
Kuvlayanund
Kavya Prakash
Dasu Rupa

V. MATHEMATICS, ASTRONOMY, AND ASTROLOGY

Siddbant Shiromani
Mahurta Chintamani
Shighra Bodh
Garbh Lagana
Nil Kanthi
Brihat Jatak
Parasariya

VI. MEDICAL SCIENCE

Sham Raj
Susruta
Charaka
Madhava Nidan
Nighant
Sharang Dhar
Bhashya Parichehed
Vagbhat

VII. LOGIC

Nyaya Sutra Vritti
Vyutpattivad
Tark Sangrah
Gada dhari
Tarkalankar
Kari kavali

VIII. VEDANT

Atma Bodh Sarirak
Panch Dashi

IX. LAW

Manu Smriti
Yagya Valk Gautama
Mitakshara
Parasara Smriti

X. PHILOSOPHY

Sankhya Tatwa Kaumudi
Sankhya Pravachan Bhashya Yoga Sutra
Vaiseshika, Siddhant Muktavali Sutra with a commentary
Patanjali, Sutra Britti Sutra with Bhashya
Vedanta, Vedantsar (see also above)
Mimansa, Sutra with Bhashya Artha Sangraha

XI. PROSODY

Srut Bodh
Vritta Ratnakar

XII. PROSE LITERATURE

Hitopadesa
Dasa Kumara Charita
Vasavadatta

XIII. RELIGION

Rigveda Sanhita (rare)
Yajurveda, Shukla Yajur Vajasneyi Sanhita
Samaveda, Mantra Bhaga Chhandasya Archika (very rare)

Annexure F

Correspondence between Mahatma Gandhi and Sir Philip Hartog

MAHATMA GANDHI ON INDIGENOUS EDUCATION

...That does not finish the picture. We have education of this future state. I say without fear of my figures being challenged successfully, that today India is more illiterate than it was fifty or a hundred years ago, and so is Burma, because the British administrators, when they came to India, instead of taking hold of things as they were, began to root them out. They scratched the soil and began to look at the root, and left the root like that, and the beautiful tree perished. The village schools were not good enough for the British administrator, so he came out with his programme. Every school must have so much paraphernalia, building, and so forth. Well, there were no such schools at all. There are statistics left by a British administrator which show that, in places where they have carried out a survey, ancient schools have gone by the board, because there was no recognition for these schools, and the schools established after the European pattern were too expensive for the people, and therefore they could not possibly overtake the thing. I defy anybody to fulfill a programme of compulsory primary education of these masses inside of a century. This very poor country of mine is very ill able to sustain such an expensive method of education. Our state would revive the old village schoolmaster and dot every village with a school both for boys and girls.

Question (SIR PHILIP HARTOG): Would Mr Gandhi give his authority for the statement that literacy had diminished in India during the last fifty years?

Mr Gandhi replied that his authority was the Punjab Administration Reports, and said that he had published in *Young India* a study of the Punjab educational statistics.

SIR PHILIP HARTOG: Would Mr Gandhi explain why the literacy figure was fourteen percent of the men and only two percent of the women, and why illiteracy was higher in Kashmir and Hyderabad than in British India?

Mr Gandhi replied that the women's education had been neglected, to the shame of the men. He could only conjecture, with regard to the figures for Kashmir, that if illiteracy was greater there, it was due to the negligence of the ruler or because the population was predominantly Mohammedan, but he thought that, as a matter of fact, it was six of the one and half a dozen of the other.

> —from *International Affairs*, London, November 1931: from a long speech by Mahatma Gandhi, on October 20, 1931 held under the auspices of the Royal Institute of International Affairs at Chatham House, London; the meeting was attended by influential Englishmen and English-women drawn from all parts of England. Lord othian, who was one of the British chairmen at the Round Table Conference on India, presided at this meeting.

(The above text is copied from
Collected Works, Vol.48, pp.199-200, 201-2)

• • •

5, Inverness Gardens,
W.8.
21st October, 1931

M.K. Gandhi, Esq.,
Round Table Conference,
St. James Palace,
S.W.1.

Dear Mr Gandhi,

I understood you to say last night at the Royal Institute of International Affairs that you could prove on the evidence of British officials that literacy had diminished in British India in the last fifty or hundred years. In reply to my request for the precise authority for this statement you mentioned a Punjab Administration Report, (without, however, giving the date,) and said that what had happened in the Punjab must have happened in the rest of India. You mentioned, too, an article in 'Young India', but also without giving its date. The subject is one in which I have taken a deep interest for some years, and I should be grateful, therefore, if you would very kindly give me precise references to the printed documents on which your statements were based, so that I may consult them.

You will, I feel sure, forgive me for pointing out that the assumption that what happens in the educational world in the Punjab necessarily happens in the rest of India is a mistaken one. It is generally recognised that the Punjab has made more rapid advances in primary education in the last 10 or 15 years than any other province in India.

In reply to my question about the inferiority of the literacy in the two largest Indian States, Kashmir, (Predominantly Mohammedan with a Hindu ruler), and Hyderabad, (Predominantly Hindu with a Mohammedan ruler), you suggested that perhaps Kashmir was educationally backward because it was predominantly Mohammedan, but this left the backwardness of Hyderabad as compared with British India unexplained. Probably the facts had not been previously brought to your notice.

If you should find ultimately that the inference from your remarks that backwardness in literacy and education has been due to British administration in India was unjustified, I feel certain that you would wish to correct your statement.

I am
Yours sincerely,
Sd/-Philip Hartog

M.K. Gandhi Esq.,
Round Table Conference,
St. James' Palace,
S.W.1

• • •

88, Knightsbridge,
London, W.
23rd October, 1931

Dear Friend,

Inadvertently, I have no doubt, you have omitted to sign your letter, but as the address is fully given, I am hoping that this letter will reach you.

You will realise that I could not off-hand give you the dates, but since you would gladly study the whole question, I would find out the numbers of 'Young India' in which the articles appeared and send the references to you. I shall also find out what is possible to prove with reference to the other provinces, apart from the deductions that I have drawn from the Punjab. Meanwhile, I have no difficulty in drawing the deduction from the rest of the Provinces from the examples of the Punjab and Burma. Whatever may be the strides made by the Punjab during the past five or ten years, cannot affect the argument that I have advanced to you.

About Kashmir, as I said in reply, mine was merely a conjecture, but since you are so interested in the question, I shall try and find out the true state of education in Kashmir.

You are quite right in feeling certain that if there were any error in my reasoning or the facts that I stated, I should immediately correct them, and whilst I should try to verify more fully the statements that I made, you will also on your part oblige me by giving me such information as may be in your possession and as may help me to understand the truth.

Yours sincerely,
Sd/- M.K. Gandhi
P.M.C.

• • •

5,Inverness Gardens,W.8.
27th October 1931

Dear Mr Gandhi,

I am much obliged by your very friendly letter of 23rd October and must apologise for having omitted to sign my own of the 22nd. I must have signed the carbon copy instead of the copy sent.

I shall be grateful for the references to the articles in 'Young India' which you promise me, and I will verify them and give you my opinion of them.

Table 55

In reply to your request for the sources of my own knowledge of the history of education in India, I would refer you to the sources quoted in the report of the Calcutta University Commission of which I was Chairman (Interim Report of the Indian Statutory Commission, H.M. Stationery Office, Cmd. 3407,1929), and especially to the literacy figures, taken from the census reports and quoted on p.382 of Vol.1 of the Simon Report, which I subjoin:—

In 1911 the figure for British India was 12%; and in 1881 8%. It has always to be remembered that these percentages are adversely affected by the existence of nearly 20,000,000 aboriginals and hill tribes, as well as by the educational backwardness of a far greater number of 'untouchables'.

You will notice that the figure for males for British India increased from 8% in 1881 (50 years ago) to 12% in 1911 and 14.4% in 1921, not a rapid increase, but still an increase.

In Travancore and Cochin you have a large number of Indian Christians. In Baroda the system of compulsory primary education taken from Western models, began to be introduced in 1893.

The census figures, as you well see, are in complete contradiction with your assertion that literacy has diminished in British India in the last fifty years.

The figures for Hyderabad (preponderatingly Hindu with a Mohammedan ruler), and for Kashmir (preponderatingly Muslim with a Hindu ruler) seem inexplicable if you attribute illiteracy to British administration.

I would refer you also to the chapter on Education which I have contributed to 'Modern India' (Oxford University Press, 1931), and finally to a work by an advanced Indian political thinker, the late Lala Lajpat Rai (National Education in India, 1920), whose views, though in many ways opposed to your own, I am sure you would find interesting.

I welcome your decision, of which I felt assured beforehand, that you will immediately correct your statement, if you are convinced that it is erroneous, and I look forward to your doing so.

Believe me,

Yours sincerely,
Sd/- Philip Hartog

5,Inverness Gardens,W.8.
13th November, 1931

M.K. Gandhi, Esq.
88, Knightsbridge, W.

Dear Mr Gandhi,

I wrote on October 27th in reply to your letter to me of October 23rd, but have not yet received from you the promised references to the documents (a Punjab Administration Report and the articles in 'Young India') on which your statement that literacy had diminished in British India during the last fifty years was based.

In case my letter of the 27th may have miscarried I enclose a copy of it, and am sending this to you by registered post.

I am,
Yours sincerely,
Sd/- Philip Hartog

M.K. Gandhi, Esq.
88, Knightsbridge
W.

• • •

88, Knightsbridge, S.W.1.
(Post-Mark Nov. 14, 1931)

(To Sir Philip Hartog, London)

Dear Friend,

Mr Gandhi has your letter of the 27th October. He has now been able to secure the files of 'Young India' for 1920 and wants me to send you the enclosed copies.

Yours sincerely,
Mahadeo Desai.

(see following page)

COPY OF ARTICLE TAKEN FROM 'YOUNG INDIA'
8TH DECEMBER 1920

THE DECLINE OF MASS EDUCATION IN INDIA

(By Daulat Ram Gupta, M.A.)

It is generally believed that from the time the British Government have taken in their hands the duty of educating the people of India, in accordance with the Parliamentary dispatch of 1854, the country has made remarkable progress in education, in so far as the number of schools, the number of scholars, and the standard of education are concerned. It will be my business to prove, that we have made no such progress in these respects,—a fact which will be startling to some and a revelation to others—and in so far as our mass education is concerned, we have certainly made a downward move since India has passed to the British Crown.

The advent of British Rule found in India systems, of education of great antiquity and value existing among both Hindus and Mussalmans, in each case closely bound up with their religious institutions. There was not a mosque, a temple, a Dharamsala, that had not a school attached to it. To give and receive instruction was regarded as a religious duty. Schools of learning were formed in centres containing a considerable high caste population, where Pandits gave instruction in Sanskrit, grammar, logic, philosophy and law.

For the lower classes, village schools were scattered over the country in which a good rudimentary education was given to the children of petty traders, cultivators and landlords. The very fact that every family of the DWIJA (twice-born) and every guild of the mixed castes, and every village of any importance, had its own priest, and that it was enjoined upon the priest to teach as well as to minister to religion, leads one to the belief, on strong prima facie grounds, that education was very widely diffused among the people.

The higher education of the Mussalmans was in the hands of men of learning. Schools were attached to mosques and shrines and supported by the state grant in cash or land, or by private liberality. The course of study in a Muslim Madrassa included grammar, rhetoric, logic, literature, jurisprudence, and science.

Thus, in Madras, in an inquiry conducted by Sir Thomas Munro in 1826, it is stated that in 1826 there were 11,758 indigenous schools and 740 colleges giving instruction to 1,57,664 boys, and 4,023 girls. (Vide Education Commission Report by the Madras Provincial Committee 1884). It is therefore estimated, that considering the population in that period (123,50,941) elementary indigenous education was imparted to about one-fourth of the boys of school-going age. It was also estimated that there was at least one school to every 1,000 of the population. 'But as only a few females were taught in schools, we may reckon one school to every 500 of the population.'

Mr Munro, (as he then was) further supplements this estimate of the spread of education with the following observation:—

> I am, however, inclined to estimate the portion of the male population, who receive school education, to one-third than one-fourth of the whole, because we have no return of the numbers taught at home.

In 1826, such was the state of purely indigenous education in a province which had been under British influence for over a century and was, therefore, fast disintegrating old institutions and adopting new ones.

In Bengal, Mr W. Adam, conducted a similar inquiry and found that in 1835 'a network of primitive Vernacular schools existed throughout Bengal', and he estimated their number to be about one lakh. The Sadler Commission has pointed out that 'no attempt was made to develop these schools.' Government preferred to devote its energies to secondary and higher schools, on the theory that, if Western education were introduced among the upper classes, it would 'filter down' by a natural process to the lower classes. Practically all the public funds available for education were expended on schools and colleges founded and controlled by Government, and nothing was spent upon indigenous schools, and as rent-free lands attached to these schools were resumed, the schools were left without any financial aid and naturally collapsed.

The purpose of all this was political. Sir Sankaran Nair in his masterly Minute of Dissent writes:—

> Efforts were made by the government to confine higher education and secondary education, leading to higher education, to boys in affluent circumstances...Rules were made calculated to restrict the diffusion of education generally *and among the poorer boys in particular.* Conditions for "recognition" for "grants"—stiff and various—were laid down and enforced, and the non-fulfillment of any one of these

> conditions was liable to be followed by serious consequences. Fees were raised to a degree, which, considering the circumstances of the classes that resort to schools, were abnormal. When it was objected that minimum fee would be a great hardship to poor students the answer was *such students had no business to receive that kind of education.* Managers of private schools who remitted fees in whole or in part, were penalised by reduced grants-in-aid.

Thus, by this policy, education was only confined to the well-to-do classes.

'They it was believed would give no trouble to the Government.' Sri Sankaran Nair, therefore, concludes that,

> It is the universal belief, and there is little doubt that facts unfortunately tend to prove it, that primary English Education for the masses, and higher education for the higher classes *are discouraged for political reasons.* Higher, professional, industrial and technical education is discouraged to favour English industries and recruitment in England of English officials.

In the Punjab the state of indigenous education was much better because of the special efforts made by Maharaja Ranjit Singh to promote learning. Dr Leitner, who was the Principal of the Oriental College and Government College, Lahore, and who also officiated for some time as Director of Public Instruction, Punjab, conducted a very thorough going inquiry into the state of indigenous education in the Punjab, and in his book on the 'History of Indigenous Education' in the Punjab, he writes:—

> I am about to relate—I hope without extenuation or malice—the history of the contact of a form of European, with one of the Asiatic, civilisation; how in spite of the best intentions, the most public-spirited officers, and a generous government that had the benefit of the traditions of other provinces, the true education of the Punjab was crippled, checked and is nearly destroyed; how opportunities for its healthy revival and development were either neglected or perverted; and how, far beyond the blame attaching to individuals, our system stands convicted of worse then official failure.

> He therefore writes:—

> I fear that my account of the decline of indigenous education in the Punjab may offend some prejudices and oppose

> some interests. I have to appeal to rulers to put themselves in the position of the ruled, if they wish to understand them…and both the writer of these pages and the reader must endeavour to divest themselves of every preconception. Indeed, the man has so often described the struggle with the lion, that it would be well to sketch a picture which the lion might have drawn had he been a painter.

Referring to the educational glory of the Punjab before annexation he writes:

> Respect for learning has always been the redeeming feature of the East. To this the Punjab formed no exception. Torn by invasion and war, it ever preserved and added to educational endowments. The most unscrupulous chief, the avaricious money lender, and even the free-booter, vied with the small land-owner in making peace with his conscience by founding schools and rewarding the learned. There was not a mosque, a temple, a Dharamsala, that had not a school attached to it, to which the youth flocked chiefly for religious education. There were few wealthy men who did not entertain a Maulvi, Pandit, or Guru to teach their sons, and along with them the sons of friends and dependents. There were also thousands of secular schools, frequented alike by Mahomedans, Hindus and Sikhs, in which Persian or Hindi was taught. There were hundreds of learned men who gratuitously taught their co-religionists, and sometimes all comers, for the sake of God, "Lillah". *There was not a single village who did not take a pride in devoting a portion of his produce to a respected teacher.* In respectable Mahomedan families husbands taught their wives, and these their children; nor did the Sikhs prove in that respect to be unworthy of the appellation of "Learners and disciples". In short the lowest computation gives us 3,30,000 pupils in the schools of the various denominations who were acquainted with reading, writing and some method of computation, whilst thousands of them belonged to Arabic and Sanskrit Colleges, in which oriental literature and system of oriental law, logic, philosophy and medicine were taught to the highest standards. Tens of thousand also acquired a proficiency in Persian which is now rarely reached in government and aided schools and colleges. Through all schools *there breathed a spirit of devotion to education for its own sake,* and for its influence on the character and on religious culture; whilst even the sons of Banias who merely

> learnt what they absolutely required in order to gain a livelihood, looked with respect, amounting to adoration, on their humble Pandhas, who taught them the elements of two 'Rs'.

Dr Leitner further describes the state of feeling with respect to education in the Punjab. He writes:

> The Punjab is classic ground. Not merely the celebrated country between Sutlej and the Jumna, but also the whole province teems with noble recollections. The history of its culture will tell us of a simple worship..........of an ardent republicanism allied to the most chivalrous devotion to chiefs, of capacity for self-Government not equalled elsewhere, and above all, of the universal respect for learning and of the general spread of education. The priest was a professor and poet, and education was a religious, social and professional duty.

It is, therefore, our belief, founded on authentic historical data, that before annexation, every Punjab village had a school of its own.

> In every Indian village which has retained anything of its form...the rudiments of knowledge are sought to be imparted; there is not a child, except those of the outcastes (who form no part of the community), who is not able to read, to write, to cypher; in the last branch of learning, they are confessedly most proficient.' (Vide BRITISH INDIA by Ludlow).

Dr Leitner estimated that in 1854-55 there were at least 30 thousand schools, and if we count at least 13 pupils per school, the total number of pupils will amount to 4 lakhs. Dr Leitner writes:

'The village school would contain 3,00,000 pupils, but there are reasons for estimating larger number.'

Further, in backward districts like that of Hushiarpur, the Settlement Report of 1852, shows a school to every 1,965 male inhabitants (adults and non-adults), which may be contrasted with the present proportion of one government or aided school to every 9,028 or one school to 2,818.7 inhabitants including the present number of ascertained indigenous schools throughout the province, a significant contrast to the proportion of one school to every 1,783 inhabitants in the most backward division of the Punjab in 1849 when brought under British Rule after a period of confusion following on war and annexation.

Such was the state of affairs in 1882, but the contrast will become more startling if we look at the figures already reproduced in 'Young India'.

A mere glance at that statement will show how the indigenous education has declined, and how stagnant the state of education has remained from 1882 to 1918-19. In a period of 37 years the government has done nothing whatsoever for mass education. In a period less than this, England was able to educate the whole of its populations; in a period considerably less than this, America could give education to a population without any records of civilisation or intellectual stamina; and in a period equal to this, Japan was able to work out its destiny. But such is the way of doing things in India that during all this time nothing was done except to shift schools from one place to another, to shift the expenses of education from one source to another, to shift the responsibility from man to man; in fact to make shifts as best as could be done.

Such in brief is the history of the decline of indigenous education, and as to how it was crushed in the Punjab will form the subject matter of the next article.

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COPY OF ARTICLE TAKEN FROM 'YOUNG INDIA' OF 29TH DECEMBER 1920

HOW INDIGENOUS EDUCATION WAS CRUSHED IN THE PUNJAB

1849-1886

The Punjab was the last of all the Provinces of India to come under the direct influence of the English. The Honourable the East India Company had during a couple of centuries, extended their sphere of influence from the Cape to the Jamuna; but its administrators never thought it worth the trouble to go beyond the Moghul Court. The Moghul Court itself was jealous of any encroachments upon its northern province—the gateway to Kabul—which they still looked upon as their ancestral home.

When the descendants of Aurangzeb began to bungle things in this province, the invaders from the North and the people from within threw in a state of anarchy and misrule. Under such circumstances the hardy Sikh began to realise his own importance and individuality. Ever afterwards till 1849, the Sikhs kept the banks of Beas free from all diplomatic or martial overtures. They preferred their own incapacity to govern to an established order of things where their liberty would be restrained and their religion interfered with. The Sikh like the Hindu is essentially devout, and his devotion always lands him on the side of conservatism; of respect for the past, its institutions and traditions.

So that, when the reins of government and authority passed into the hands of the Sikhs, both from lack of initiative and requirements of diplomacy, they left untouched all the old village institutions. Whereas, British administrators in other provinces were changing and modifying ancient ways and manners to suit their own conceptions, the Sikh Sirdar was content to let things have their own way, so long as he got the revenue that he wanted. The result of it all was that a network of village schools which traditions of a thousand years past had spread all over India, was in its full strength here. If any change was made at all, it was to add the Granthi or Bhai, to the Maulvi and the Pandit. Instead of there being two traditional teachers of village youth, now there became three.

The village education was an essential part of the village administration and the provision for it was made in the village expenses. The ‘school-master’s field’, the ‘watchman’s field’ never disappear from the village books. There was in every village in the Punjab, a school of some sort, in which elementary education, having a direct bearing on the secular needs of the pupil, was imparted either free of cost, or at a nominal rate of monthly fee. In addition to these schools, there were spread all over the province ‘colleges’ of various grades and denominations in which the ancient ideals of the academies were kept alive and potent. There were centres of advanced studies of metaphysics, astronomy, mathematics, grammar, philosophy and other sciences.

That much good was done to all sections of the community by these indigenous schools and colleges, is beyond doubt a fact recognised even by the bitter antagonists of the indigenous system. From the advanced ‘colleges’, in which classical education (Arabic and Sanskrit) was imparted to students of mature age and thought, to the elementary Mahajani, Sharafi, and Lande Schools, there was a very large variety of quasi-classical vernacular and technical schools. The teachers always kept in view the requirements of individual students and the profession they were qualifying for.

There was no class instruction, as in our schools reducing all intellects to the same level and retarding the industrious for the sake of the dullard. But recitations in Sanskrit and the system of repeating lessons in chorus on the dispersion of the school encouraged such emulation as may be necessary, whilst the separate instruction of the pupil and his devotion to his work during the time that he was not reading with his tutor stimulated those habits of reflection and of private study, in which the students of present day schools are sadly deficient. Then again when the student grew older, he travelled to learn philosophy under one tutor, and law under another, much in the same way as students of German Universities visit various seats of learning in order to hear, say, international law at Heidelberg, the Pandects at Berlin.

It would not be without interest to point out that from the humblest beginnings in education up to the highest courses in Hindu metaphysics and science great wisdom was displayed. Traces of the 'Kindergarten system' are still found. The simplest methods for arresting and keeping attention were resorted to and the moral and mental capacities of children, according to their spheres of life, were everywhere carefully studied and cultivated. As for the mode of instruction, it also bore in every one of its features the emphatically practical as well as ideal aim of the Hindu legislator.

That the above statement is not an unsupported assertion, I will quote a paragraph from the first educational despatch of the Court of Directors which was issued on the 3rd June 1814.

The Directors point out that 'the indigenous village schools are a part of the village system and that they have formed a model to schools in England.' Again they point out 'this venerable and benevolent institution of the Hindus is represented to have withstood the shock of revolutions, and to its operation is ascribed the general intelligence of the native.'

In 1848 the Government of the Punjab passed into the hands of the East India Company. The first Board of Administration in the Punjab recognised the full value of the rich educational legacy, which they inherited from the decaying and disintegrating Sikh constitution. Recognising the widespread character of the indigenous education, and the necessity of keeping up old educational traditions alive, Sir John and Sir Henry Lawrence defined their policy in matters of education in the following words:—

'We intend to set up one school, if not in every village, at least in every circle of villages, so that at least there should be something throughout the land in which the children do attend some rudimentary school.'

How far policy was actually carried out will be explained in another article.

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5,Inverness Gardens,W.8.
17 November 1931

Dear Mr Gandhi,

I beg to acknowledge with thanks the undated letter received on November 14th, written on your behalf by Mr M. Desai in which were enclosed typed copies of two articles on Indian education by Mr D.R. Gupta published in *Young India* for 8th December 1920 and 29th December 1920.

I understand that it is on the evidence adduced in those articles and on a Punjab Administration Report to which you have not given me the reference, that you base the sweeping statement that literacy had diminished in British India during the past fifty years, and that you could prove this from official statements.

I have examined the articles and can find nothing in them to support your contention. The articles do not contain a single percentage of literacy. The chief authority quoted is the 'History of Indigenous Education in the Punjab' by Dr G.W. Leitner, a Punjab Official. I feel sure that when you made your assertion you cannot have been aware that that book was published nearly fifty years ago, in 1882. Mr D.R. Gupta does not mention the fact. Nor does he point out that so far from regarding the Punjab as typical, Leitner compares that Province educationally to its disadvantage with the Central Provinces and with Lower Bengal (loc. cit. p.3). It is only within the past ten or fifteen years that the Punjab has made the rapid advances in primary education to which I referred in my letter of 21st October.

I am still awaiting the reference which you promised to a Punjab Administration Report. I have consulted recent Punjab Administration Reports, but can find nothing in them relating to literacy in British India, and it is obviously unlikely that any

Punjab Report would deal with such a subject. If you find therefore that your reference was made in error, may I suggest that you should now withdraw your statement in accordance with the undertaking given in the last paragraph of your letter to me of October 23rd?

Yours sincerely,
Sd/-Philip Hartog

P.S.: May I ask from what Report Sir Sankaran Nair's Note of Dissent referred to in Mr Gupta's first article, is quoted? No reference is given in the article itself.

Sd/- P.H.

M.K. Gandhi, Esq,.
88, Knightsbridge, W.

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88, Knightsbridge
London, S.W. 1,
November 19, 1931

Sir Philip Hartog, K.B.E.
5 Inverness Gardens, W.8.

Dear Sir Philip,

I am much obliged to you for your letter of the 17th inst.

I do not propose just now to withdraw the statement I made at the meeting at Chatham House. At the present moment I have not got any time for searching the records to which you are making reference. I, however, promise not to forget the matter, and if I find that I cannot support the statement made by me at Chatham House, I will give my retraction much wider publicity than the Chatham House speech could ever attain.

Meanwhile I am endeavouring to find out the references you want.

Yours sincerely,
Sd/- M.K. Gandhi

Sir Philip Hartog, K.B.E.
5 Inverness Gardens, W.8

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5,Inverness Gardens,W.8.
20 November 1931

Dear Mr Gandhi,

I am much obliged by your letter of yesterday's date.

I think it might help matters if you could spare me a few moments of your valuable time; and I should be glad to call on you if would suggest a day and hour.

I am,
Yours sincerely,
Sd/- Philip Hartog

M.K. Gandhi, Esq,.
88, Knightsbridge, W.

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5, Inverness
Gardens,W.8.
22nd November 1931

Dear Mrs Naidu,

In accordance with your kind suggestion today I send you enclosed copies of my letters to Mr Gandhi of 27th October and 17th November. The other letters from me do not contain any detailed information. Would you kindly return the enclosures at your convenience?

With kind regards,

Yours sincerely,
Sd/-Philip Hartog

Mrs Sarojini Naidu,
7, Park Place,
St. James', S.W.I.

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Scar Top,
Boars Hill, Oxford.
November 23, 1931

Dear Sir Philip Hartog,

I probably under-rate the indigenous system of Indian education; at any rate, I have never thought it amounted to much. My statement is not the usual extravagant claim of the Nationalist, but a pretty mild one.

However, you will get the evidence in F.E. Keay, *Ancient Indian Education*, Oxford University Press 1918—esp. pp.51, 57, 107 and *passim*.

Dr Leitner, *History of Indigenous Education in the Punjab*, pp.14, 21 *passim*.

A Report for the Punjab Government issued in 1882.

A.P. Howell, *Education in British India Prior to 1854*. And Ludlow, *British India*.

The Madras Presidency made an enquiry, 1822-6, and calculated that rather less than one-sixth of the boys of school-going age received education of some sort. Bombay Presidency, 1823-8, estimated it as one in eight, Bengal, 13.2 percent (Adam's enquiry 1835). William Ward supposed that about one-fifth of the male population of Bengal could read.

I know the difficulties. But I feel more and more that in this matter, of general education, we did precious little to congratulate ourselves on—until the last dozen years. Don't you agree? Calcutta University was damned bad. And the Middle Vernacular schools—

Yours sincerely,
Sd/- Edward Thompson

P.S. I do not believe we destroyed indigenous schools and indigenous industries out of malice (which is what is stated, in America as well as India). It was inevitable.

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INTERVIEW WITH MR GANDHI ON DECEMBER 2, 1931

In my last letter to Mr G. relating to his statement at the Royal Institute of International Affairs on October 20th that literacy in India had diminished during the last 50 or 100 years (see Journal of International Affairs November 1931, pp.727, 728, 734, 735). I had asked him for an interview. I received no reply in writing, but Mrs Sarojini Naidu, to whom I had spoken on the matter, arranged for an interview today, by telephone, and I went to see Mr G. at 88, Knightsbridge at 4 p.m. and stayed till five. He was lying on a sofa covered with his shawl in front of a big fire, obviously tired, though he insisted on rising both when I came and when I went. He told me that he had thought his strength was equal to anything but that he was now saturated. I suggested that he might be too tired to discuss matters but he said that it was a pleasure to meet me and he apologised sincerely for not having written to offer me an appointment.

He admitted at once that he had at present no facts to substantiate his statements and did not attempt to answer my argument that the articles in *Young India* for December 8th and 29th 1920 by Daulat Ram Gupta of which he had furnished me with typed copies, contained no literacy figures and that the most recent official report in them, Dr G.W. Leitner's History of Indigenous Education in the Punjab was written in 1882 and could therefore furnish no evidence with regard to the progress or decline of literacy in India during the last 50 years. He told me that Mr Mahadeo Desai who was present had been investigating the matter in the British Museum. Mr Desai admitted that he had found nothing fresh up to the present. Mr G. said that he would question the writer of the articles in *Young India* and that on his return he would get competent friends to investigate the matter for him over there and that he would send me a cablegram with regard to the result, and that in it he would say whether he had found material that would convince me that he was right, or that he would apologise handsomely for his mistake, and would make his withdrawal in such a way as to reach a much wider audience than his original statement.

I showed him Leitner's Book and pointed out the statement on p.3 in which Leitner had pointed out that the Punjab was not typical but far behind the Central Provinces and Lower Bengal in the proportion of pupils to population, a statement not referred to by Mr Gupta though he had quoted figures in regard to Hushiarpur from p.2. I told Mr G. that the population of British

India in 1882 was roughly speaking 210 millions and that it had increased in 1931 to about 270 millions, i.e. about 30 percent in round figures, and that during that period the number of pupils under instruction in British India had increased from about 2½ millions to over 11 millions, i.e. more than 4 times, and that it would be surprising therefore if literacy had diminished during these 50 years.

I also pointed out that it was impossible to draw any accurate conclusions on the other hand in regard to literacy from the numbers of pupils under instruction. Howell in his Education in British India had pointed out that for many reasons, including the early age at which the children are withdrawn it was almost worthless (loc. cit. p.7). I also mentioned that during the years 1917-1927 in Bengal with an increased enrolment of over 3,00,000 pupils (the actual figure is about 370,000) there had been a decline of about 30,000 pupils in the number that reached Class IV where under present conditions, literacy was first attained.

I also showed Mr G. certain figures of literacy for Bengal from Adam's Report on Vernacular Education of 1835-38 and compared them with the census figures for 1921 Vol.5, p.302. I further showed him census figures for 1911 and 1901 taken from the same volume, p.285, showing considerable increases in literacy in Burma, Bengal and Madras, though the Punjab, Bihar, Bombay and United Provinces had made little or no progress during those years. Mr Gandhi said, 'I know very little about these things' in a tone of apology, to which I rejoined that he had no doubt many other things to occupy his attention.

Towards the end of the interview I said that I hoped that he was now on the side of peace. He replied that he had meant exactly what he had said on the previous day, that he would read the Prime Minister's declaration over again and again, and that he felt the immense personal responsibility that rested on his shoulders in advising Congress. He said that he had postponed his departure in order to see Sir Samuel Hoare on the following Friday as Sir Samuel had said that he would have no free time during the debate in Parliament (on the Wednesday and Thursday). I said, 'I am sure you must be convinced that Englishmen are in earnest in wishing to give India everything possible at the present moment.' He said, 'Yes, but there is one thing that the English sincerely believe, but which I cannot understand. They think us incapable of managing our own affairs even with the help of experts. When I was a young man and my father was Prime Minister of an Indian State, I knew the Prime Minister of another Indian State (Junagarh), who could hardly sign his own name but who was a very remarkable man and managed the state wonderfully. He knew just who were the right people to advise him and took their advice. When I spoke to your own Prime Minister about the exchange value of the rupee, he said to me, that he knew nothing about exchange values, that the Prime Minister had of course to do things in his own name but had really to depend on experts. We have had experience in governing in the past and we could do equally well.'

I did not think it worthwhile to pursue the political topic or to point out the political chaos of India when the British entered on the scene, as my main object was to secure from Mr Gandhi the withdrawal of his statement about literacy. I ended up the interview by saying that I was a man of peace, and had no desire to enter on a controversy but that I must state the facts in the Journal of International Affairs, and to this I understood Mr Gandhi to assent. I wished him a pleasant journey back to India and said I hoped I had not tired him. He replied that it had been a real pleasure to see me, and that he hoped to keep in touch with me.

There were present during the conversation Mr Desai, a tall young man whose name I did not know, Miss Slade to whom I was introduced, but who was in a kind of back drawing room for most of the time, and another young Englishwoman, who brought Mr Gandhi some fruit at the end of the interview. No one intervened in the conversation, but once or twice Mr Gandhi asked Mr Desai for information. It appeared that Mr Desai had been asked by Mr Gandhi to try to get information from the British Museum, but that he had been unable to get the books he had wanted and had not been able to find any facts to support Mr Gandhi's statements. Mr Desai accompanied me downstairs and showed me his British Museum slips for one book dated 1859, another book of 1867-8, and a book by Wilmot on "'he Indigenous System of Education in India', of which he had not the date.

I find I have omitted one statement of some importance. Mr Gandhi said that he had not accused the British Government of having destroyed the indigenous schools, but they had let them die for want of encouragement. I said that they had probably let them die because they were so bad that they were not worth keeping up. In the United Provinces Mahomedan witnesses had told my Committee that the Mahomedan schools not organised by Government were not an aid but a hindrance to Mahomedan progress and I knew there were many voluntary schools in other parts of the country of which this might be said. I told Mr Gandhi that my interest in primary education in India was no new thing; and that when as a member of the Sadler Commission I had seen Mr Montagu and Lord Chelmsford in 1918 I had told them both that although university reform was perhaps the most urgent matter, the problem of primary education was the fundamental one for India, although I could not advise on it then. I said that India had probably not yet found the solution of the problem of giving the agricultural labourer an education that would make him a more efficient cultivator without making him want to be a clerk, but that the Punjab, under the inspiration of the late Mr Richey whose work had been carried on by Sir George Anderson, had made great strides in the last ten or fifteen years. I described the system adopted in Punjab and Mr Gandhi said he had heard of recent progress in that province. I then told him that Bombay had probably the most efficient schools in some ways under the system initiated by Dr Paranjpye, but that the complete transfer of control to local bodies by his successor had unfortunate results, as so many district boards were more interested in politics than in education of which they knew very little.

I next told Mr Gandhi that I could not accept his suggestion that universal primary education must necessarily be very remote, and that my Committee had estimated than an additional recurring expenditure of about 19 crores would bring about 80 percent of boys and girls into the primary school system. Mr Gandhi then asked me if I thought that primary education would be much use unless the children went on to middle schools. I said that was the next step that would follow, and that I regarded the encouragement of vernacular middle schools as of the greatest importance not only for the sake of the children, but because they produce the primary teachers. I said that I was sorry that Bengal despised vernacular middle schools and insisted on English teaching middle schools.

We then spoke of girls' education and I quoted the opinion of my Committee that in all schemes of expansion priority should be given to the claims of girls. Mr Gandhi said that he entirely agreed, but he asked himself whether primary education would make girls better mothers. Mr Gandhi said that he had not read the Report of my Committee. I asked him if he would like to do so on his journey back to which he said yes and I promised to send him a copy.

(*These notes were dictated on December 2nd and December 4th*)

5,Inverness Gardens,W.8.
2 December 1931

Dear Mr Thompson,

My apologies for not having acknowledged your kind letter of November 23rd with its references earlier. I was familiar with Adam's Reports and Leitner, and with Howell from quotations. I have looked at Keay, and I'm afraid he doesn't impress me. I will ask F.W. Thomas what he thinks of the book, but it all seems to me second-hand.

After going through your reference I am still in doubt as to whether the statement on p.255 of the 'Reconstruction of India' 'Nevertheless there was more literacy if of a low kind, than until the last ten years' is justifiable. You mention figures for Bombay schools and Bengal schools. But from my experience of Indian schools it is a far cry from attendance to literacy.

In the ten years 1917-27 with an increased enrolment of nearly 370,000 pupils in Bengal, the number in Class IV, where first you may expect permanent literacy, declined by 30,000. (See EDn Comtee of Simon Commission Report, p.59, including Table xxxiv).

I imagine from my reading of Adam, and Howell and Leitner—all pressing the claims of indigenous education—that this kind of thing is not new.

Did you notice in Long's edition of Adam p.268 a quotation from a report of Mountstuart Elphinstone dated 25 October 1819 in which he says:

'There are already schools (in the Deccan) in all towns and in many villages, but reading is confined to Brahmans, Banyans, and such of the agricultural classes as have to do with accounts.'

And Howell, p.7, in referring to Adam's estimate that there were 100,000 schools in Bengal in 1835 and similar estimates in Madras and Bombay says 'although all authorities were agreed that the existence of these schools was a satisfactory evidence of a general desire for education, there was equal unanimity that the instruction actually imparted in them was, owing partly to the utter incompetence of the teachers, the absence of all school books and appliances, and the early age at which the children were withdrawn, almost worthless.'

All the people I have quoted wanted Government to build up a system on the basis of the village schools.

Adam gives some literacy figures which are worth examining in detail. I will look up the Census returns for the actual districts for which Adam has given figures.

Yours sincerely,
Sd/- P.J. Hartog

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Scar Top,
Boars Hill, Oxford.
December 5, 1931

Dear Sir Philip Hartog,

I am really not clear as to what we are disputing about.

My statement is mild enough, moderate enough and its purpose is plain. I was obviously trying to go to the limits of concession that truth permitted, as to claims that I consider entirely wrong. That seems to me the only way to get a controversy forward. I never did believe in the method of belittling whatever case my opponent, whether British imperialist or Indian nationalist, may have. The context makes it clear that I have never thought that Indian schools amounted to much. It makes equally clear what I remember quite well was in my mind when I wrote that passage—this was that I do not agree with the steady crabbing of the last dozen years but to emphasise that on the whole they have been years far more progressive than any previous decade.

Of course—literacy and school attendance are not the same thing. They are not the same even now. But that is the realm of the imponderable and not worth arguing. If it comes to that, just now I rank mere literacy low enough. It seems to me we are in for a rotten ten years of struggle to keep any sort of decency alive. I may be overdepressed; but I saw the utter wash that the 'literate' populace of the United States read as their only gain from education, and I come back to this country to find that the weeklies are dying or recently dead, and that Daily Mail, Daily Express, and the infamous Sunday popular papers are about all the reading that Demos does. I believe the most popular weekly is 'Competitions', which guides the huge mob whose sole intellectual recreation (an absorbing and costly one) is making 'bullets' or cross-word puzzles (sending up six-pence a time). On the other hand, Akbar was 'illiterate'.

There are in India poor folk who never went to any sort of school who have learnt to read. But these of course are few. They pay a few pice to be coached by some student. There must be more literacy in the sense of reading the vernaculars, than the numbers in schools indicate, or else how could every Bengal bazaar swarm with these frightfully printed (but cheap) texts of Ramprasad, Chandidas, Krittibas's Ramayana (before the War, according to Dinesh Sen, two hundred thousand sold every year), even of Bhadu songs (which are sung only in two divisions)? Sarat Chatterjee told me that in 1921 the twelve annas edition of his fiction had brought him in twelve thousand rupees in royalties, which I estimate to be a sale of two hundred thousand. But the semi-religious texts swarm and always have done, irrespectively of the number in schools.

I will go into the matter when in India next spring. But my impression has steadily deepened that the first real advance we made—in most things—began about 1917. I do not think you will believe how stagnant officialdom was before the War. When I started in educational work in Bengal, the M.V. Schools used to pour an indescribably turbid stream into the fourth class of our high school—literate, if you like, but it would have been almost better if they were not. And the Education department was shocking. The acting Lieut. Governor was the notoriously inefficient Slack, and the D.P.I. the notoriously lazy Kuchler. I do not believe that a century ago there was widespread literacy. But neither do I believe that anything we ever did for education before about 1917 made any serious difference or improvement. We give ourselves many unjustified chits. But I will stand up for what we have done since the unfairly abused Montagu-Chelmsford Reforms.

Previous to 1917, what were the figures of literacy? Four or five per cent of the population? I believe they were higher a century ago. But the only way of proving this would be by finding out what sales in the very much smaller population of that day (though the first census was 1871, was it not?) were achieved for the popular classics.

Yours sincerely,
Sd/- Edward Thompson

(IN HAND FOLLOWING TYPED LETTER)

P.S. 'Banyan' is a usual way of referring to 'Banias', in East India Company documents.

I have again read carefully through your letter. It seems to me that we are in agreement. Obviously we both think that (a) the literacy of a century ago amounted to very little to justify a song about it (b) that the average M.E. or M.C. schools of prewar days was a farce. We used to be asked continually to take over village 'M.V.' schools, with a failed Inter Arts or even failed Matric, as their head, and their students appalled me. Our own high school boys were bad enough but...I tell you what it is. The prewar administration of India in many ways was *appalling*. I know the difficulties. But tell me—what is it that has been wrong with Indian administration? I am reading old records by pre-Mutiny residents. They teem with information that makes you hope the Congresswalla will never get hold of it. Oxford swarms with ex-I.C.S. I like and respect them very much indeed. But what has happened to the often first class record of intellect they had before entering the I.C.S.? It seems to me the very hopelessness of...huge Indian job used to oppress and...us. We did not do anything like as much as Englishmen should have done.

I scandalously ran on to the back of this—which I never do hurriedly—to keep it short. You see, I sail December 24, and I am shockingly overworked until I get off.

• • •

TO THE EDITOR, 'INTERNATIONAL AFFAIRS' (Extract from 'International Affairs', the journal of the Royal Institute for International Affairs, for January, 1932. p. 151.)

Sir,

At a very largely attended meeting at Chatham House on October 20th last, Mr Gandhi said:

> 'I say without fear of my figures being challenged successfully that today India is more illiterate than it was fifty or a hundred years ago, and so is Burma, because the British administrators, when they came to India, instead of taking hold of things as they were, began to root them out.'[1]

It will be seen from the report of the meeting that Mr Gandhi did not at the time quote the figures to which he referred. I therefore asked him if he would give his authority for the statement that literacy had diminished during the last fifty years and he replied:

> 'that his authority was the Punjab Administration Reports, and said that he had published in Young India a study of the Punjab educational statistics.'[2]

I wrote at once to Mr Gandhi asking him for precise references. In response to my request he has been good enough to furnish me with typed copies of two articles on the 'Decline of Mass Education' by Mr Daulat Ram Gupta, published in 'Young India' for December 8th and December 29th, 1920. These articles do not, however, contain a single literacy percentage either for the Punjab or Burma or for India generally, nor do they contain any direct reference to Punjab Administration Reports. They do, however, refer to the 'History of Indigenous Education in the Punjab' by Dr G.W. Leitner, an educational official in the Punjab, which refers to some of these reports. But Dr Leitner's Report was published forty-nine years ago, in 1882, and I have been unable to discover in it any literacy percentages.

I have drawn Mr Gandhi's attention to, these facts. The present position is that Mr Gandhi has so far been unable to substantiate his statement in any way. I have to add that in the course of a friendly correspondence, and also at an interview which 1 had with him on December 2nd, he has undertaken to retract that statement if he cannot support it. I think it best to postpone any further comment on the question until I receive his promised communication.

Yours faithfully,
Sd/- P. J. Hartog

5 Inverness Gardens,
Vicarage Gate, W. 8.
December 14, 1931

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LETTER OF MR M.K. GANDHI TO SIR PHILIP HARTOG (COPY)

Dear Friend,

I am sorry I was unable, owing to circumstances beyond my control, to fulfill the promise I gave you about my statement on the condition of Primary education in India during the pre-British time. Immediately on my landing I entrusted the research to Advocate Munshi, a member of the Bombay University senate, and two other educationist friends. But they too like me find themselves civil resistance prisoners. I had asked Advocate Munshi to put himself in direct touch with you. But his arrest came so soon after mine that I hardly think he could have corresponded with you. As I am permitted to carry on non-political correspondence, I have now asked Prof Shah to test my statement and give you the result of his test. As I found in you a fellow seeker after truth, I was most anxious to give you satisfaction either by confirming my statement or withdrawing it as publicly as I had made it. I thought that I would tell you what I had done in pursuance of my promise.

As I have not your private address by me, I am sending this to you under care India Office.

Yours Sincerely,
Sd/-M. K. Gandhi.

Yeravda Central Prison,
Poona. 15.2.32.

• • •

45, Chowpatty Road, Bombay (7)
20th February, 1932

Dear Sir Philip,

I have been informed by Mahatma Gandhi that during his stay in London recently, and while speaking at some public meeting about the state of education in British India before the advent of the British in this country, he remarked that the extent of literacy was greater in those days than at the present time. He adds that you had questioned the accuracy of that statement, and called upon Mr Gandhi to furnish proof in support of the same. Mahatmaji has, I understand, referred you to some writings in the *Young India*; but you do not consider that sufficient proof; and so has asked me if I could find any more acceptable substantiation for that observation. I am, therefore, addressing you this letter to try and offer that substantiation, as far as the records available could permit of my doing so. If you care to acknowledge this letter to Mahatmaji, would you at the same time send me a copy of the same?

To begin with, I need hardly point out to you that, at the time under reference, no country in the world had anything like definite, authoritative, statistical information of the type one would now recognise as proper proof in such discussions. In India particularly, thanks to the distracted state of the country, it was impossible to provide any such material on a nation-wide basis, even supposing it had been customary to compile such information from time to time. The elaborate 'directory', if I may so describe it, of the territories under his rule, compiled by the indefatigable Minister of the great Akbar known as the Ayeen-i-Akbari, was prepared so long before the advent of the British that I feel a hesitation even in referring to it, apart from the further fact that authoritative work suffers from other blemishes in the eyes of a too critical reader. All, therefore, that one can expect by way of proof in such matters, and at such a time, can only be in the form of impressions of people in a position to form ideas a little better and more scientific than those of less fortunately situated, or less well endowed, observers. Such official investigations as were ordered in connection with the periodical parliamentary enquiries before the renewal of the Company's Charter in 1793, 1813, 1833, and 1853 also afford some data, though these have their own defect as is pointed out below. Other official enquiries, reports, or obiter dicta of qualified officers, were originally for a purpose different from the one under reference here; and, therefore, discussion or observation on educational matters therein must needs be taken as incidental rather than as the immediate subject of their concern, and consequently open to such defects as all such incidental observation suffers from.

For the immediate purpose of this letter, will you permit me to begin by referring you to the reports of certain provincial enquiries conducted about the time when the British rule first began in those provinces? Let me, however, add a remark as applied to the country, at large, on the authority of Max Mueller, and another on the authority of the historian Ludlow,—both mentioned in Keir Hardie's work on India. 'Max Mueller, on the strength of official documents and missionary reports, concerning education in Bengal prior to the British occupation, asserts that there were then 80,000 schools in Bengal, or one for every 400 of the population. Ludlow, in his History of British India, says that "in every village, which has retained its old form, I am assured that the children generally are able to read, write and cipher; but where we have swept away the village system, there the village school has also disappeared."' (Cp. B.D. Basu, *Education in India under the E.1. Co.*, p18).

In Bombay, which came under British rule after the fall of the Peshwas in 1818, a Report of the Bombay Education Society for 1819 observes:— 'There is probably as great a proportion of persons in India who can read, write, and keep simple accounts, as are to be found in European countries.' The same Report for the following year notes:— 'Schools are frequent among the natives, and abound everywhere.' In April, 1821, Mr Prendergast, member of the Executive Council of the then Government of Bombay, notes in a Minute on an application for 2 English schools in Thana or Panwell Talukas:— 'I need hardly mention what every member of the Board knows as well as I do that there is hardly a village, great or small, throughout our territories, in which there is not at least one school, and in larger villages more; many in every town and in large cities in every division where young natives are taught reading, writing and arithmetic, upon a system so economical, from a handful or two of grain, to perhaps a rupee per month to the schoolmaster, according to the ability of the parents, and at the same time so simple and effectual, that there is hardly a cultivator or petty dealer who is not competent to keep his own accounts with a degree of accuracy, in my opinion, beyond what we meet with among the lower orders in our own country; whilst the more splendid dealers and bankers keep their books with a degree of ease, conciseness, and clearness I rather think fully equal to those of any British merchants.' (Cp. Commons Report, 1832, p.468).

I shall come to Madras in a moment, and revert to statistical proof such as I can find,—thereafter. Let me here refer you to the classic case of Dr Leitner's Report on the system of Indigenous Education in the Punjab, based on an investigation carried out by the learned Doctor,—principal of a Government College, because of a surprising difference between his figures of the people educated in indigenous schools, and those supplied by the Director of Public Instruction for the province, to the Indian Education Committee of 1882. Dr Leitner remarks, in his introduction to his Report,—'In short the lowest computation gives us 330,000 pupils (against little more than 190,000 at present) in the schools of the various denominations, who were acquainted with reading, writing and some method of computation; whilst thousands of them belonged to Arabic and Sanskrit colleges, in which oriental literature and systems of Oriental Law, Logic, Philosophy and Medicine, were taught to the highest standards.' I would particularly commend to your attention this classic document of 650 odd pages (folio), the more so as Dr Sir Wm. Hunter, president of the Indian Education Committee, made a special Minute to the Report of that Committee (pp.621-2) in which he found that Dr Leitner's estimate of 120,000 pupils in the Punjab was actually an underestimate by some 15,000, while the official figure supplied by the D.P.I. of the province was below the actual figure by some 80,000 pupils. Incidentally, this will suffice to show how imperfect, inaccurate, undependable, was the official statistical information for these early days, when the people viewed with easily intelligible suspicion enquiries of this nature, and so passively refused to afford the correct information wherever and whenever they could help it. Without minimising in the least degree the value of statistical evidence, I cannot but add that such evidence is worse than useless, when we recall the conditions under which it was compiled, as also the temperament and training of the officials who helped in compiling the same in those primitive times of British rule in India.

Let me now speak of Madras, that earliest settlement of British rule in India, and even now said to be the best educated province in the Empire. Sir T. Munro, in a Minute dated 10.3.1826 (Commons Report, 1832, p.506) observes that, taking the male part of the population only, and taking children of between 5-10 years of age only, as school going population, (assumed to be one-ninth of the total population) there were 713,000 male pupils that would be at school. The actual number of pupils in recognised schools was found by him to be 184,110 which works out to be a little over a fourth of the total school-going population. Sir Thomas, however, was of opinion that the actual proportion was nearer one-third than one-fourth, owing to a large number of children receiving instruction privately, and so not included in the above calculation.

In Bengal, (Cp. Adam's Report, 1838) the total number of children between 5-14 years of age is taken at 87,629. Of these, 6,786 were returned as receiving instruction in the recognised schools, or 7.7%. This includes both men and women, girls as well as boys, while in Madras only the male population was considered. On that basis, this figure could be easily raised to at least 15% of the total. There is reason to prefer this basis for calculation, since, under the conditions and ideas of the time, women could not go for education to schools publicly recognised; and so a proper index for judging of the real state of literacy is rather the male population than the total. Again, the percentage of population receiving instruction, compared to the total of school-going age, would be still higher, if we would bear in mind the fact that the so called untouchables formed part of the total, but could not, necessarily, be included in the people receiving instruction as these were not admitted into public institutions.

In the Bombay Presidency, the total population was returned in 1829 at 4,681,735. The total number of scholars in schools was 35,153. If we take, with Sir T. Munro, one-ninth of the population to be of school-going age, the total figure of school-going age would be 520,190. This gives a percentage of 7 to the total of school-going age; while if we confine ourselves only to males, the percentage of scholars to the total population (male) of school-going age would be 14. This proportion is more than borne out by the later Report of 1841, relating to only 9 selected districts in the Presidency.

The following comparative position, between the state of things now and a hundred years ago, would be instructive, if not conclusive. Percentages of population of school-going age receiving primary education in 1921 (males only) and a 100 years ago (roughly):

Madras	42.5	33
Bombay	45.1	14 (highest 28 in some parts)
Bengal	37.2	16 (highest 32 in some parts)

I have already pointed out that these statistical data for the earlier period are undependable, because (1) the figures for privately educated children are not available; (2) the people were averse to disclosing what they thought to be unwarrantable bits of information; (3) the compilers of this information were not of requisite efficiency or intelligence; (4) certain large sections of the population were necessarily excluded, and had to be excluded from these calculations, if they were to be at all reliable; and so the mere percentages, uncorrected, are of no use. The closer enquiry of this type conducted by Leitner is far more reliable, and so also the obiter dicta of people in the position to have clear impressions. These people, also, generally obtained their impressions of the state of education in the area under their charge, only incidentally, while collecting information for Land Revenue Settlement of their districts; and the primary object was not to discover the real state of education in the country, but something quite different. Hence even those impressions must be held to give rather an underestimate than otherwise of the true state of affairs in this behalf, in view of the considerations mentioned already.

Yours truly,
Sd/-K.T. Shah

. . .

5 Inverness Gardens,
Vicarage Gate, London,W.8.
9 March, 1932

M.K. Gandhi, Esq.,
Yervada Central Prison,
Poona,
India.

Dear Mr Gandhi,

Many thanks for your kind letter of February 15, which reached me last night. I fully understand your difficulties in carrying out your promise. I received by the same post as your own a long letter from Professor K.T. Shah dated February 20, which he has no doubt sent to you, but the letter contains absolutely no data which would enable one to judge whether literacy had advanced or declined during the last fifty years; it contains not a single literacy percentage. I have been very much pressed by other work, but I have in a rough state material for two or three articles on the progress of literacy in Bengal during the last hundred years, of which I will send copies both to yourself and Professor Shah when they are completed. The position is still that you are unable to supply the figure to which you referred in your address at the Royal Institute of International Affairs on October 20. I feel sure that you will be convinced by the facts as stated in my articles, which are not in any way converted by the statements in Professor Shah's letter. I enclose a copy of my reply to Professor Shah and also a copy of a letter dated

December 14th which appeared in the Journal of the Royal Institute for January.

With every good wish, I am,

Yours sincerely,
Sd/- Philip Hartog

• • •

5 Inverness Gardens,
London, W.8.
March 10, 1932

Professor K.T. Shah
45 Chowpatty Road,
Bombay (7).

Dear Professor Shah,

I am much obliged for your letter of February 20, and for the great trouble, you have taken in this matter. I received a letter dated February 15 from Mahatma Gandhi by the same post, and am sending to him a copy of this reply to you. I enclose copies of my reply to him, and of a letter from me which appeared in 'International Affairs', (the Journal of the Royal Institute of International Affairs) for January, 1932.

When you have read these documents you will realise that your letter does not touch the main question which I put to Mr Gandhi, viz., what authority he had for the statement that literacy had diminished during the last 50 years in India. The latest authority that you quote is Leitner, whose History of Indigenous Education in the Punjab was published in 1882—50 years ago—and throughout your letter you do not give any literacy percentages at all.

On the other hand, you appear to think that the number of schools is a guide to literacy percentages. I agree that that would be a natural conclusion, but, on the other hand, as has been pointed out in the census, a number of Indian schools in the past did not aim at literacy, and more recently the Education Committee of the Indian Statutory Commission, of which I was Chairman, pointed out that in the ten years 1917 to 1927 the number of primary schools in Bengal was increased by nearly eleven thousand, and the number of pupils by nearly 370,000 whereas in Class IV, the lowest class in which permanent literacy is likely to be attained under existing conditions, the number of pupils had actually diminished by nearly 30,000. I am afraid that I am altogether unable to accept your conclusions with regard to the history of literacy in Bengal during the past 100 years, of which there remains a good deal to be said.

This is only a preliminary reply to your letter; I hope to be able to write shortly again, both to Mr Gandhi and yourself.

Yours sincerely,
Sd/- P.J. Hartog

• • •

20 March 1939

Dear Mr Gandhi,

You will, I think, remember that when you were in England for the Round Table Conference, now more than seven years ago, we had a friendly discussion on the subject of literacy in India, which arose out of a statement made by yourself at the Royal Institute of International Affairs to the effect that literacy had diminished in British India in the last fifty or hundred years. You will perhaps also remember that I had an interview with you on the subject at your rooms in Knightsbridge in December 1931, and that you willingly undertook publicly to retract your statement if you were convinced that there was no basis for it in fact; and that you very kindly wrote to me about it later when you were in Yervada Gaol. The file of correspondence of which I enclose a copy will show you exactly how the matter rested after your last letter of 15 February 1932 and my reply of 9 March following.

I had to put the subject aside, owing to other and urgent demands on my time, but I have recently concluded an investigation of the authorities to which you and Professor Shah referred me and have published the results in three memoranda included, in the book entitled *Some Aspects of Indian Education, Past and Present,* of which I enclose a copy for your acceptance. You will see that in the Preface I have referred not only to our controversy but to your Wardha scheme, in which I take the deepest interest. If you will read through the Memoranda, I have little doubt that you will find that a close analysis of the facts reveals no evidence to support the statement which you made at the Royal Institute of International Affairs on October 20, 1931, and that you will therefore feel justified now in withdrawing that statement. As you implied in your letter of 15 February 1932 we are both concerned only with ascertaining the truth, and, I would add, in removing obstacles to good understanding between the British and the Indian peoples.

With all good wishes,

Believe me,

Yours sincerely,
Sd/- P. Hartog

Mahatma M.K. Gandhi,
The Asram,
Wardha,
C.P., India.

P.S. I had intended sending a copy of my book to Professor K.T. Shah, but I have been unable to find his present address from any of the books of reference. Perhaps you would kindly let me know what has become of him?

P.J.H

* * *

2 May 1939

Professor K.T. Shah,
45 Chowpatty Road,
Bombay (7)

Dear Professor Shah,

I sent to you a few weeks ago a book of mine recently published by the Oxford University Press, called 'Some Aspects on Indian Education, Past and Present', which I hope you have duly received. I intended to write to you at the same time, but have been working under extreme pressure.

As you will see, the book includes three 'Payne Lectures' given at the Institute of Education dealing with general problems, historical and actual, of Indian education, and also three memoranda in which I have examined in detail the arguments in the letter which you wrote to me in February, 1932 at Mahatma Gandhi's request, in support of his statement at Chatham House that literacy had diminished in India during the previous fifty or a hundred years.

You will perhaps remember that in my reply (of 10 March 1932) I pointed out that you had not touched on the question of the previous fifty years, and that I was unable to accept your conclusions in regard to the history of literacy in Bengal in the previous hundred years, of which there remained a good deal to be said.

I promised to write to you again but did not do so because, owing to the pressure of other work, I was obliged to postpone the detailed examination of the historical facts, of which the record was much too long to be comprised in a letter and is now set out in the book.

Yours sincerely,
Sd/- Philip Hartog

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CONFIDENTIAL

Copy of a letter from Mr Gandhi to Sir Philip Hartog. (Sent in envelope dated 16 August 1939; the date on the letter itself is difficult to decipher.)

Segaon, Wardha.

Dear Sir Philip,

I have not left off the pursuit of the subject of education in the villages during the pre-British period. I am in correspondence with several educationists. Those who have replied do support my view but do not produce authority that would be accepted as proof. My prejudice or presentiment still makes me cling to the statement I made at Chatham House. I don't want to write haltingly in Harijan. You don't want me merely to say that the proof I had in mind has been challenged by you. Meanwhile I send you a copy of an article in Modern Review on the subject. I should like your reaction to it if you have the time.

Yours sincerely,
Sd/- M.K. Gandhi

(Note: The article of which a copy has been sent to me by Mr Gandhi is in my opinion of no value P.J.H.)

• • •

10 September 1939

Mahatma Gandhi,
Segaon Wardha,
Central Provinces,
India.

Dear Mr Gandhi,

Many thanks for your letter and enclosure relating to my book.

I will write to you on the subject later when I am less overwhelmed with work, but I cannot wait to express to you my profound gratitude, shared, I am sure, by an innumerable number of my fellow-countrymen, all over the world, for the attitude you have taken up in regard to the present War at your interview with the Viceroy, reported in the 'Times'.

I know how much it must have cost you to express an opinion involving any kind of approval of war; I hate war, perhaps as much as you do, but violence on the part of a policeman in trying to rescue a child from the clutches of a ruffian, is surely justifiable and it is to such action that I compare the war of Great Britain and France in support of Poland at this moment.

With every good wish,

Believe me,

Yours sincerely,
Sd/- Philip Hartog

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Annexure G

List of Tanjore Temples Receiving Revenue Assignments
14.4.1843

No.6: ACCOUNT PARTICULARS OF THE ANNUAL MOHINS TO THE PAGODAS OF TANJOUR FOR FUSLEE 1222

No.	Name		Place	Amount		
				Ch.	Fs.	C
1	2		3	4		
1.	Combaswara Swamy	Pagoda at	Combaconum	1,349	4	8
2.	Naugaswara Swamy	-do-	-do-	666	6	16
3.	Somaswara Swamy	-do-	-do-	100	”	”
4.	Cailaheeteeswara Swamy	-do-	-do-	90	”	”
5.	Vissvanauda Swamy	-do-	-do-	22	2	24
6.	Govotamaswara Swamy	-do-	-do-	22	5	”
7.	Sodasulinga Swamy	-do-	-do-	18	”	”
8.	Causevisswanada Swamy	-do-	-do-	125	”	”
9.	Aubemuttaswara Swamy	-do-	-do-	18	”	”
10.	Saurungapauny Swamy	-do-	-do-	2,120	2	24
11.	Chacrapauny Swamy	-do-	-do-	766	6	20
12.	Rauma Swamy	-do-	-do-	666	6	20
13.	Saranaraina Permall	-do-	-do-	270	”	”
14.	Kistna Swamy	-do-	-do-	36	”	”
15.	Hanumut Swamy	-do-	-do-	50	”	”
16.	Aumortagataswara Swamy	-do-	Teroculasa Nellor	77	8	28
17.	Nundanada Permall	-do-	Nundavanum	53	5	16
18.	Caravalanauda Swamy	-do-	Keerungoody	36	”	”
19.	Hanumunta Swamy	-do-	Saucottah	138	“	”
20.	Baunapooraswara Swamy	-do-	Varnahtoray	33	”	”
21.	Sevagoronauda Swamy	-do-	Sevaporum	48	3	6
22.	Prauvataswara Swamy	-do-	Daunakpoorum	240	”	”
23.	Supta Ketchaswara Swamy	-do-	Sausevarumbakporum	1,575	”	”
24.	Muhalinga Swamy	-do-	Murdearjenum	3,000	”	”
25.	Baunaporaswara Swamy	-do-	Govindaporum	240	”	”
26.	Vencatachellaputty Swamy	-do-	Govindapoorum	120	”	”
27.	Managanada Swamy	-do-	Trenalagoody	240	”	”
28.	Sudjunaswara Swamy	-do-	Caravaly	18	”	”
29.	Campaharaswara Swamy	-do	Trebovum	1,000	”	”
30.	Nauganunda Swamy	-do-	Vooppalapuncovil	291	6	20

1	2		3	4		
31.	Vencatachallaputtee Swamy	Pagoda at	Vooppalapuncovil	144	9	”
32.	Yadoottadynauda Swamy	-do-	Wootturoinnumboor	18	”	”
33.	Somanada Swamy	-do-	Poundareeca-poorum-	6	”	”
34.	Raujagopaula Swamy	-do-	-do-	9	”	”
35.	Rauma Swamy	-do-	Adumbaur	54	”	”
36.	Veelenada Swamy	-do-	Terovalynalala	226	8	14
37.	Solapareswara Swamy	-do-	Trepaum Boorum	38	5	”
38.	Soochumanauda Swamy	-do-	Theelasaragoody	2	”	”
39.	Aupachagaswara Swamy	-do-	Tocayachee	36	”	”
40.	Codundarauma Swamy	-do-	-do-	18	”	”
41.	Ganaswara Swamy	-do-	Codevassels	36	5	16
42.	Woottarasweedaswara Swamy	-do-	Coottaulum	466	6	20
43.	Cholaswara Swamy	-do-	-do-	240	”	”
44.	Vouncauluswara Swamy	-do-	-do-	12	”	”
45.	Munnaduswara Swamy	-do-	-do-	6	”	”
46.	Suptaratchaswara Swamy	-do-	-do-	1	5	”
47.	Causevissvanauduswara Swamy	-do-	-do-	4	5	”
48.	Audecaswara Permall	-do	-do-	25	”	”
49.	Somanauda Swamy	-do-	Tevomungach-arny	18	”	”
50.	Verdaraja Permall	-do-	-do-	28	1	16
51.	Veroopauchy Swamy	-do-	Saragoody	18	”	”
52.	Teroomoolenauda Swamy	-do-	Poladagooda	15	”	”
53.	Soondaraswara Swamy	-do-	Naicoopadenpady	15	”	”
54.	Vencatachellaputtee Swamy	-do-	Naicoopadenpady	7	5	”
55.	Brumhapooraswara Swamy	-do-	Abraumapoorum	30	”	”
56.	Chamundaswara Swamy	-do-	Cholanelaugum	7	5	”
57.	Nauradaverda Permall	-do-	Cudalungoody	75	”	”
58.	Soondaraswara Swamy	-do-	-do-	73	”	”
59.	Singaura Totul Pilliar	-do-	Cadalungoody	9	”	”
60.	Nutanaporuswaraswara Swamy		Munemady	30	”	”
61.	Nuganauda Swamy	-do-	Teruchetumbalm	9	9	24
62.	Retnanadaswara Swamy	-do-	Terovaluputtoor	75	”	”

1	2		3	4		
63.	Vidonuuda Swamy	Pagoda at	Virdouganellore	18	”	”
64.	Verdarauja Permall	-do-	Puupaugoody	18	”	”
65.	Visswanauda Swamy	-do-	Satungoody	1	5	”
66.	Neelacuntaswara Swamy	-do-	Covelady	75	”	”
67.	Kylausanada Swamy	-do-	Morogumungalam	12	5	”
68.	Jemboonauda Swamy	-do-	Vyel	5	4	”
69.	Vomamahaswara Swamy	-do-	Trenalum	37	3	12
70.	Veeratunduswara Swamy	-do-	Veeraucum	18	”	”
71.	Padupataswara Swamy	-do-	Pundanellor	666	6	20
72.	Audeecasava Permall	-do-	-do-	144	”	”
73.	Hunnumunta Swamy	-do-	Pundanelloor	18	”	”
74.	Pillyar	-do-	-do-	18	”	”
75.	Vissvanauda Swamy	-do-	-do-	7	5	”
76.	Brumhapooraswar Swamy	-do-	Vatatoty	35	6	16
77.	Vencatachellapattay Swamy	-do-	Covanoor	3	”	”
78.	Tolasaswara Swamy	-do-	Cauvennour	2	”	”
79.	Soondaraswara Swamy	-do-	Treloky	13	5	”
80.	Sheraubdenaurauyana Permall	-do-	-do-	20	”	”
81.	Paulanauda Swamy	-do-	Terovaupaudy	149	8	16
82.	Codundarauma Swamy	-do-	Corochy	62	1	16
83.	Aumoortagataswara Swamy	-do-	Corochy	5	”	”
84.	Yesraumanaswara Swamy	-do-	Keelacauttoor	5	”	”
85.	Keelacauttoor Permall	-do-	Keelacauttoor	5	”	”
86.	Agusteeswara Swamy	-do-	Malacautoor	90	”	”
87.	Vencatachellaputty Permall	-do-	-do-	150	”	”
88.	Durmaporaswara Swamy	-do-	Darmaporum	60	”	”
89.	Soobbramanna Swamy	-do-	Govinthanallocherry	3	”	”
90.	Vencatachellaputtay Swamy	-do-	Terovembanellore	12	5	”
91.	Aronaujataswara Swamy	-do-	Teropanental	533	3	8
92.	Suptagerenauda Swamy	-do-	Senganellore	14	”	”
93.	Punchavurnaswara Swamy	-do-	Manecoody	30	”	”
94.	Pranavadanganauda Swamy	-do-	Pranavedencum	220	”	”
95.	Vadaporuswara Swamy	-do-	Trecaulatulla	9	”	”
96.	Aucheyanauda Swamy	-do	Tremandery	90	”	”

1	2		3	4		
97.	Sooregunaurauyana Swamy	Pagoda at	Sooreanercovil	288	6	20
98.	Yadancondaswara Swamy	-do-	-do-	9	”	”
99.	Veadooroonda Permall	-do-	Veeterondapermal-covil	3	9	”
100.	Carnaudaswara Swamy	-do-	Cornadaropoor	30	”	”
101.	Kylausanaudaswara Swamy	-do-	Asoor	50	”	”
102.	Verdarauja Permall	-do-	-do-	58	”	”
103.	Augnaswara Swamy	-do-	Cunjanoor	216	“	”
104.	Codundarama Swamy	-do-	-do-	90	“	”
105.	Vissvanauda Swamy	-do-	-do-	18	“	“
106.	Trecataswara Swamy	-do-	Trecottacauvul	47	5	”
107.	Soondaraswara Swamy	-do-	Naugamungalum	12	5	”
108.	Buddracauly	-do-	Candeyoor	18	”	”
109.	Vissvanauda Swamy	-do-	Valoor	7	2	”
110.	Baujacholaswara Swamy	-do-	Coottanoor	4	6	“
111.	Kylausanauda Swamy	-do-	Codeyalum	2	4	“
112.	Brumkapooraswara Swamy	-do-	Nullataday	6	7	16
113.	Kylauswanada Swamy	-do-	-do-	2	1	24
114.	Vissvanauda Swamy	-do-	Annacoody	107	5	”
115.	Goporaswara Swamy	-do-	Terocolumbium	270	”	”
116.	Kaumaswamy	-do-	Ramaswarapoorum	480	”	”
117.	Boodaswara Swamy	-do-	Darany	19	1	”
118.	Tautacaswara Swamy	-do-	Nainassel	1	”	”
119.	Soondaraswara Swamy	-do-	Davastanumca-ropoor	266	5	24
120.	Vencatachellaputtee Swamy	-do-	-do-	18	”	”
121.	Kylausanauda Swamy	-do-	Solavanum	97	5	”
122.	Vencatachellaputtee Swamy	-do-	Solavanum	13	5	”
123.	Nauganautaswara Swamy	-do-	Maunumbaudy	9	”	”
124.	Sondarauja Permall	-do-	Caduchembaudy	106	6	20
125.	Raumaswamy	-do-	Valangam	48	”	”
126.	Chendrasucra Swamy	-do-	Chendrqasacor-apoorum	36	”	”
127.	Kristnaswamy	-do-		24	”	”
		-do-	Trechara	300	5	”
128.	Saranata Swamy	-do-	Trechara	36	”	”
129.	Vydenata Swamy	-do-	Veroopauchi-poorum			

1	2		3	4		
130.	Verdarauja Permall	Pagoda at	Veroopauchipoorum	33	2	16
131.	Kylausanauda Swamy	-do-	Kylausanada-Cuttay	8	5	16
132.	Voodayanan Permall	-do-	Noodiavercovil	37	9	28
133.	Aupashaya Swamy	-do-	Aulungoody	33	2	8
134.	Doondabaswara Swamy	-do-	Singalapoorum	4	5	”
135.	Kylausanauda Swamy	-do-	Voga	14	5	4
136.	Jemboonauda Swamy	do-	Coottoor	“	9	12
137.	Bilvanauda Swamy	-do-	Terocaulumboor	36	”	”
138.	Pautalaswara Swamy	-do-	Karadavaramungalum	33	”	”
139.	Verdarauja Permall	-do-	-do-	4	9	28
140.	Cauracotaswara Swamy	-do-	Aravoor	18	”	”
141.	Sauchynandy Swamy	-do-	Navorulloor	9	6	24
142.	Paramaswara Swamy	-do-	Nauloor	18	”	”
143.	Gunanaswara Swamy	-do-	Teromungalum	33	2	4
144.	Jemboonauda Swamy	-do-	Andancovil	56	9	8
145.	Mauyavaranauta Swamy	-do-	Myaveram	1,725	”	”
146.	Soobbramanneya Swamy	-do-	-do-	525	”	”
147.	Patora Visswanada Swamy	-do-	-do-	18	”	”
148.	Toracauttovullur	-do-	Valanagur	100	”	”
149.	Vurdarauja Permall	-do-	-do-	40	”	”
150.	Semmendaranada Swamy	-do-	Semmandarancovil	14	3	16
151.	Agneeswara Swamy	-do-	Keleyannoor	40	”	16
152.	Sittumbalanada Swamy	-do-	Sittumbalanadeyar	4	”	”
153.	Veerataswara	-do-	Valoor	150	”	”
154.	Maurgasaheya Isswarar	-do-	Moovulloor	36	”	”
155.	Aupana Isswarar	-do-	Auluntore	4	”	”
156.	Soobbramunna Swamy	-do	Pavamoor	75	”	”
157.	Vaudeeswarar	-do-	Davastanumparenchary	30	”	”
158.	Ramaswamy	-do-	Terovalungoody	75	”	”
159.	Cholasworar	-do-	-do-	18	”	”
160.	Gopaula Kistna Swamy	-do-	Trevalungoody	18	”	”
161.	Voduvundanada Pooraswarar	-do-	Kooleyempata	2	7	”
162.	Verdaraja Permall	-do-	-do-	7	4	”
163.	Renganauda Swamy	-do-	Trevalundoor	833	3	20
164.	Raumaswamy	-do-	-do-	240	”	”

1	2		3	4		
165.	Taundoneeswarar	Pagoda at	Trevalundoor	29	2	16
166.	Soondareeswarar	-do	Palaroyeepitta	11	5	4
167.	Somanataswarar	-do-	Needoor	32	5	”
168.	Soondaraswarar	-do-	Manacody	10	8	”
169.	Suttapooreeswarar	-do-	Coromocamaudumpata	22	5	”
170.	Vadaneeswarar	-do-	Vullalaurcovil	240	”	”
171.	Kylausanaudaswarar	-do-	Solasacavanelloor	2	7	16
172.	Naugunaudaswarar	-do-	Pogacoddy	17	2	16
173.	Kylausanaudaswarar	-do	Cunnahnuttum	120	”	”
174.	Boolocanaudaswarar	-do-	Tremungalum-covilput	21	4	22
175.	Sova Sevalocanauda-swarar	-do-	Manacody	5	9	24
176.	Taundonaswarar	-do-	Solampata	12	5	”
177.	Alegenaudaswarar	-do-	-do-	18	5	”
178.	Streenevassa Permall	-do-	-do-	4	”	”
179.	Noodvaneswara Swamy	-do-	Teromunjasra-covilput	34	5	14
180.	Muddanaswara Swamy	-do-	Teromunjara	12	5	”
181.	Manavalaswarar	-do-	Teroovalacody	90	”	”
182.	Kylausanaudaswarar	-do-	Moolungoody	2	9	8
183.	Verdarauja Permall	-do-	-do-	2	9	”
184.	Veerateeswarar	-do-	Corocacovilput	90	”	”
185.	Mactetaswarar	-do-	Varagade	15	”	”
186.	Aubachahaya Isswarar	-do-	Anneyoor	60	”	”
187.	Coottumpoorotta Isswarar	-do-	Talanauyer	52	3	16
188.	Kylausanaudaswarar	-do-	Vadavaunjayar	7	2	28
189.	Vencatachellaputty Swamy	-do-	-do-	7	2	28
190.	Valumborenauda Swamy	-do-	Terovalumboor	180	”	”
191.	Naugananda Swamy	-do-	Naugonaudum-covilput	9	”	”
192.	Yellummah Davy	-do-	Modecondanelloor	23	7	24
193.	Sovaraparaswarar	-do-	Sembavarcovilput	33	7	24
194.	Comarasaumy	-do-	Maharaujaporum	3	”	”
195.	Yerataswarar	-do-	Paraselloor	47	5	30
196.	Agnaswarar	-do-	Nullada	38	”	16
197.	Muddanaswarar	-do-	Elapayore	2	5	”
198.	Custory Kenga Permall	-do-	Permalcovilput	26	2	8
199.	Somanauda Swamy	-do-	Vulunpodacody	3	”	”
200.	Amortagutaswarar	-do-	Trecauttayoor	1,157	8	15
201.	Amoortanaurayana Permall	-do-	-do-	38	”	24
202.	Soyembonauda Swamy	-do-	Praulacuttly	450	”	”
203.	Verdarauja Permall	-do-	Koottungoody	1	9	28

1	2		3	4		
		Pag.at				
204.	Vissawanaudaswarar	-do-	Alugepilliumpata	1	9	28
205.	Paurvataswarar	-do-	Iyengoody	60	9	22
206.	Casava Permall	-do-	-do-	4	1	”
207.	Tremacanaudaswarar	-do-	Treverachoor	296	5	”
208.	Agustaswaraswamy	-do-	-do-	27	”	30
209.	Mauguleeswarar	-do-	Maungoodycutty	9	9	30
210.	Seveporanaudaswarar	-do-	Keevannoor	240	9	”
211.	Crepausambodva Permall	-do-	Sarapoleyoor	188	”	”
212.	Paulavaraudaswarar	-do-	-do-	1	7	28
213.	Kylausanaudaswarar	-do-	Kylausanadacadalungoody	15	9	”
214.	Nithamanavaulaswarar	-do-	Nudangolum	7	”	”
215.	Prauvataswarar	-do-	Trecottaurum	15	5	”
216.	Soobbramunnaswarar	-do-	Covilcundangoody	24	”	30
217.	Naugunaudaswarar	-do-	Munnahgoody	15	9	28
218.	Amoortagaswarar	-do-	Yarvedy	1	4	30
219.	Sevalocanaudaswarar	-do-	Koottapaudy	19	8	4
220.	Audilingaswarar	-do-	Paranelloor	7	”	”
221.	Brumhaporaswarar	-do-	Polagoodycovil	2	8	4
222.	Veetoronda Permall	-do-	Keelacadaneengoody	15	5	”
223.	Brumhaporaswarar	-do-	Ambul	150	”	”
224.	Veetoronda Permall	-do-	-do-	18	”	”
225.	Maugaunlaswarar	-do-	Covileromaulm	240	”	”
226.	Sourerauja Permall	-do-	Trecennapoorum	1,125	”	”
227.	Agneeswara Swamy	-do-	Trepogalore	1,020	”	”
228.	Voottarauputy Isswarar	-do-	Trechencauttengoody	533	”	8
229.	Raumanauta Swamy	-do-	Ramanaudasgoody	20	3	”
230.	Teroovulumboor Isswarar	-do-	Yanangoody	4	”	”
231.	Somanaudaswarar	-do-	Bundauravaudah	3	5	”
232.	Retnageraswarar	-do-	Teromarogul	133	6	14
233.	Sovurnageraswarar	-do-	Teyatamunga	30	3	”
234.	Anundaswarar	-do-	Anuntanelloor	2	”	”
235.	Vulmenaudaswarar	-do-	Tundumbauluyore	20	5	”
236.	Cullanasoondra Permall	-do-	-do-	3	”	”
237.	Panasayer Isswarar	-do-	Condaga	8	”	”
238.	Raumaswamy	-do-	-do-	4	2	”
239.	Aupachaya Isswarar	-do-	Corttaulum	9	8	”
240.	Gomacutaswarar	-do-	Terovaudotory	416	”	28
241.	Visswanataswamy	-do-	Curayacundom	25	6	4
242.	Vatarennaswarar	-do-	Terovaulungod	82	”	”
243.	Soyembonaudaswarar	-do-	Narasingumpata	9	5	”
244.	Pusoopataswarar	-do-	Nullavoor	20	”	”
245.	Vadaporaswarar	-do-	Taralundoor Isswarauncovilput	90	”	”

1	2		3	4		
246.	Aurnava Permall	Pag. at	Paroomalcovilput	85	”	”
247.	Govindarauja Permall	-do-	Turadundet	18	”	”
248.	Ganaswarar	-do-	Teromunganum	36	”	”
249.	Vytalaswarar	-do-	Maratagoody	90	”	”
250.	Prauvataswarar	-do-	-do-	36	”	”
251.	Aupachahayuswarar	-do-	Nadavaujapoorum	36	2	”
252.	Suttunaudaswarar	-do-	Shellay	1,153	1	8
253.	Naugaswarar	-do-	Sumbungoody	1	”	”
254.	Valavadenaudaswarar	-do-	Terocarungauvoor	1	”	”
255.	Vadanguswarar	-do-	Tellynaudungun	2	5	”
256.	Lechmenaurauyan Permall	-do-	Setturaudapurm	3	7	”
257.	Tennulucotaswarar	-do-	Tennalagoody	2	5	”
258.	Kylausanadaswarar	-do-	Varauyeropocom-arapillasastry	6	5	”
259.	Munnoolaudeeswarar	-do-	Nunnalungarum	1	5	”
260.	Visswanaudaswarar	-do-	Yaracoor	1	”	”
261.	Lotchmananaurayana Permall	-do-	-do-	2	5	”
262.	Kylasanadaswarar	-do-	Sedeyacoody	2	4	”
263.	Verdaraja Permall	-do-	-do-	1	6	”
264.	Soondaraswara Swamy	-do-	Tremalundy	225	”	”
265.	Aupachahaya Isswarar	-do-	Saumyan	3	”	”
266.	Terolaulamoodiyar Isswarar	-do-	Putcho	50	”	”
267.	Vadaporaswarar	-do-	Vadavundungoody	1	8	”
268.	Nacrarpana Isswarar	-do-	Kentanayarcovilput	3	”	”
269.	Taulaporaswarar	-do-	Coviltrecolacah	7	5	”
270.	Valavadanaudaswarar	-do-	Koelatoracoragauvoor	9	”	”
271.	Teverauma Swamy	-do-	Taudaurungovil	220	”	”
272.	Raumaswamy	-do-	-do-	80	”	”
273.	Agasteeswarar	-do-	Aulunjary	9	”	”
274.	Coondulearunaswarar	-do-	Malatrecolacah	9	8	”
275.	Maudalaswarar	-do-	Maudelevaloor	18	”	”
276.	Runganadaswamy	-do-	Vadarangum	112	5	”
277.	Gungauparamaswarar	-do-	Apparcovil	9	8	”
278.	Sevalocanaudaswarar	-do-	Trepungoor	125	”	”
279.	Teromanealagur	-do-	Manepullum	5	”	”
280.	Videnaudanauda Swamy	-do-	Valoor	4,050	”	”
281.	Parandaswarar	-do-	Paucusula	4	”	”
282.	Yacanauda Swamy	-do-	Yogeswarum	6	5	”
283.	Brumhaporaswarar	-do-	Cundattoor	3	”	”
284.	Lutchmeswarar	-do-	Tremundeyore	15	”	”
285.	Cunnauromoodiyer Isswarar	-do-	Corovaunucoody	4	”	”
286.	Kistna Swamy	-do-	Moradoor	3	”	”
287.	Letchmennarauyana Permall	-do-	Cunjuhnagur	2	”	”

1	2	3		4		
		Pag.at				
288.	Cadumodeswarar	-do-	Keelagoor	18	”	”
289.	Polagaswarar	-do-	-do-	1	”	”
290.	Swatuurunna Swamy	-do-	Trevencaud	1,628	6	16
291.	Aurunnaswarar	-do-	Teroocautoopully	5	9	”
292.	Raumaswamy	-do-	-do-	6	1	16
293.	Gopaulaswamy	-do-	Cauvalumbaudy	21	2	16
294.	Paurataswarda Permall	-do-	Prartumpully	12	5	”
295.	Norasimma Permall	-do-	Mungamadum	35	”	”
296.	Prauvataswarar	-do-	Paretotum	12	5	”
297.	Audicasuva Permall	-do-	Parecototum	7	5	”
298.	Chayavamaswarar	-do-	Chayavanum	50	”	”
299.	Pullavanaswarar	-do-	Malayore	12	5	”
300.	Comaraswamy	-do-	-do-	4	”	”
301.	Preyavadangum Swamy	-do-	-do-	4	”	”
302.	Moottee Apperswamy	-do-	-do-	2	”	”
303.	Raujanaurayana Permall	-do-	-do-	6	”	”
304.	Raganta Permall	-do-	-do-	3	”	”
305.	Agusteeswarar	-do-	Kellayore	3	”	”
306.	Tauladanaswarar	-do-	-do-	2	”	”
307.	Latchmennaurauyana Permall	-do-	-do-	1	”	”
308.	Sencaurana Swarar	-do-	Noodeyavana-covilput	17	5	”
309.	Teronada Permall	-do-	Bundauyavauda	25	5	”
310.	Nurteneswarar	-do-	Punja	15	”	”
311.	Naurayana Swamy	-do-	Keelanaugoor	92	”	”
312.	Poroshotma Swamy	-do-	-do-	162	”	”
313.	Puleconda Permall	-do-	-do-	75	”	”
314.	Ysicondanauda Swamy	-do-	-do-	24	”	”
315.	Sumpana Naurayana Permall	-do-	-do-	25	”	”
316.	Verdarauja Permall	-do-	-do-	10	”	”
317.	Coodunacoottar Permall	-do-	-do-	37	5	”
318.	Mutanguswarar	-do-	-do-	8	”	”
319.	Naucaya Pilliar	-do-	-do-	3	5	”
320.	Comara Swamy	-do-	Malanaugoor	6	2	16
321.	Nauganada Swamy	-do-	Sempadareyener-spotumpaudy	18	”	”
322.	Anna Permall	-do-	Malusaula	78	5	”
323.	Maudava Permall	-do-	Keelasaula	130	”	”
324.	Temungayalvar	-do-	Trenugery	337	5	”
325.	Nurasinga Permall	-do-	Sennalymailpaudy	2	5	”
326.	Cumbaranaudaswamy	-do-	Vellupullum	2	5	”
327.	Narasinga Permall	-do-	Coravulloor	2	”	”
328.	Marcandaswarar	-do-	Munamado	5	7	4
329.	Brumhaporaswar	-do-	Teromengod	47	5	30

1	2		3	4		
		Pag. at				
330.	Aubemoctaswarar	-do-	Pillapermahnelloor	3	”	”
331.	Todaraputteswarar	-do-	Cauluyapanelloor	2	5	”
332.	Raujagopaulaswamy	-do-	-do-	70	”	”
333.	Agaswarar	-do-	Panahary	2	5	”
334.	Soobbramunneya Swamy	-do-	Terovadecolly	125	”	”
335.	Verdaraja Permall	-do-	-do-	18	”	”
336.	Cholaswarar	-do-	Gooduloor	3	”	”
337.	Taundonaswarar	-do-	Aucoor	21	4	6
338.	Raujagopaula Swamy	-do-	-do-	40	4	17
339.	Nauganauta Swamy	-do-	Precaulachary	45	”	”
340.	Nittevenocara Swamy	-do-	Sauttenoor	25	”	”
341.	Durbanunna Swarar	-do-	Trenallum	1,100	”	”
342.	Nalanaurauyuna Permall	-do-	-do-	17	“	”
343.	Trelocunauda Swamy	-do-	Tuccaloor	16	“	”
344.	Agusteeswarar	-do-	Seloor	17	4	”
345.	Caucata Swarar	-do-	Caucomally	3	6	”
346.	Veelenata Swamy	-do-	Valudeyore	12	6	”
347.	Puttarauvepermall	-do-	-do-	8	4	”
348.	Taundonaswarar	-do-	Nullumbalum	24	”	”
349.	Chohareswarar	-do-	Tennongoody	20	”	”
350.	Maudeeswarar	-do-	Maudiyar	28	”	”
351.	Yacuumbaraswarar	-do-	Covilputtosatoor	36	”	”
352.	Mauranauta Swamy	-do-	Yalayangoody	16	”	”
353.	Siddaswarar	-do-	Saittoor	120	”	”
354.	Raujagopaula Swamy	-do-	-do-	60	”	”
355.	Taundoneswarar	-do-	Nadangod	36	”	”
356.	Kylausanaudaswamy	-do-	Scoramavalunga	18	”	”
357.	Bramusteeswarar	-do-	Caranbagaram	60	”	”
358.	Nauganauda Swamy	-do-	Causugoody	36	”	”
359.	Verdarauja Permall	-do-	Varehegoody	12	”	”
360.	Teromunealagur	-do-	Trevettagoody	36	”	”
361.	Sittanauda Swamy	-do-	Poovum	6	”	”
362.	Moolavanauda Swamy	-do-	Tremalavausel	125	”	”
363.	Verdarauja Permall	-do-	-do-	10	”	”
364.	Raujagopaula Swamy	-do-	Mannargoody	3,333	3	10
365.	Tolasaswarar Woodiyar	-do-	-do-	4	8	”
366.	Neelacuntuswarar	-do-	-do-	4	8	”
367.	Chaconauta Swamy	-do-	-do-	5	1	”
368.	Jayamcondanauda Swamy	-do-	Singanarcovil	120	”	”
369.	Nauganauda Swamy	-do-	Paumany	120	”	”
370.	Kylausanauda Swamy	-do-	Kylausanaudacovil	35	1	”
371.	Somanauda Swamy	-do-	Sangolum	1	2	”
372.	Sacteporawara Swamy	-do-	Trechittamuttum	6	”	”
373.	Annamalanauda Swamy	-do-	Annahmalanadacovil	30	”	”
374.	Vennaswara Woodiyar	-do-	Saramungalum	5	”	”

1	2	3		4		
375.	Chotorungavallaboor-aswarar	Pag. at	Poovunnoor	140	”	”
376.	Vurdurauja Permall	-do-	-do-	104	”	”
377.	Curpaga Pilliar	-do-	Narasingamun-galum	1	8	”
378.	Raumanauda Swamy	-do-	Toly	6	”	”
379.	Agasteeswarar	-do-	Koppauchary	3	”	*
380.	Kylausanauda Swamy	-do-	Keelayore	2	2	16
381.	Visswanauda Swamy	-do-	-do-	3	7	16
382.	Vurdurauja Swamy	-do-	Keyennoor	3	1	8
383.	Vundoornauda Swamy	-do-	Sinnacotanelloor	18	”	”
384.	Aumarauvataswara Swamy	-do-	Vootteyana	15	”	”
385.	Raumaswamy	-do-	Raumanaudapoorum	6	2	16
386.	Rutnapooraswara Swamy	-do-	Natalaungogoody	5	7	16
387.	Aulagunatta Swamy	-do-	Alagenaudancovil	7	7	16
388.	Augusteeswara Swamy	-do-	Pinnavaucel	5	”	”
389.	Sawmeyanausay-anaswamy	-do-	-do-	5	”	”
390.	Visswanauda Swamy	-do-	Agratopo	7	5	”
391.	Letchmenaurauyana Permall	-do-	Munula	9	”	”
392.	Verdarauja Permall	-do-	Tittachary	3	“	”
393.	Trenegaswara Swamy	-do-	Sundangoody	2	2	16
394.	Maduchendaswara Swamy	-do-	Covilputt	6	”	”
395.	Sevanauda Swamy	-do-	Sevanudercovil	5	”	”
396.	Conaunaswara Swamy	-do-	Munacar	2	5	”
397.	Ponvadauda Swamy	-do-	Settamboor	30	”	”
398.	Runganauda Swamy	-do-	-do-	15	”	”
399.	Detchnagocurnoswara Swamy	-do-	Pelevalum	360	”	”
400.	Vencatachellaputtee Swamy	-do-	-do-	360	”	”
401.	Kylausanauda Swamy	-do-	Voya	7	5	”
402.	Kylausanauda Swamy	-do-	Elangoorgoody	18	”	”
403.	Teyagarauja Swamy	-do-	Trivalore	5,050	”	”
404.	Cunda Row	-do-	-do-	26	7	16
405.	Parevattuncutty Isswarar	-do-	-do-	18	”	”
406.	Veedavadunga Isswarar	-do-	-do-	30	”	”
407.	Curpoorucutty Isswarar	-do-	-do-	6	”	”
408.	Terocnaundacutty Isswarar	-do-	-do-	20	”	”
409.	Camalauya Ammen	-do-	-do-	12	5	16
410.	Nduvanayanar Isswaar	-do-	-do-	9	”	”
411.	Vissvanauda Swamy	-do-	-do-	3	”	”
412.	Egnaswara Swamy	-do-	-do-	18	”	”

1	2		3	4		
413.	Vissvanauda Swamy	Pag. at	Trivalore	18	”	”
414.	Vissvanauda Swamy	-do-	Tengara	18	”	”
415.	Soobbramunneya Swamy	-do-	-do-	6	”	”
416.	Vissvanauda Swamy	-do-	-do-	9	”	”
417.	Vellay Pilliar	-do-	Tencara	3	”	”
418.	Tovauninar Swamy	-do-	-do-	27	”	”
419.	Veropauchiswara Swamy	-do-	-do-	3	2	16
420.	Prautaupa Visvanauda Swamy	-do-	-do-	180	”	”
421.	Tarady Kylausanada Swamy	-do-	-do-	3	”	”
422.	Vissvanauda Swamy	-do-	Roumgaya	288	”	”
423.	Raumaswamy	-do-	-do-	252	”	”
424.	Aubemoctaswara Swamy	-do-	Maradunpata	12	”	”
425.	Runucauday	-do-	Vejayaporum	180	”	”
426.	Teromunganasawry Swamy	do-	-do-	6	”	”
427.	Aununda Pilliar	-do-	-do-	1	5	”
428.	Capelaswarar	-do-	-do-	1	”	”
429.	Trenedaswarar	-do-	Pillatarno	6	”	”
430.	Kylausanadaswara Swamy	-do-	Palavanacody	12	”	”
431.	Letchmenaurayana Permall	-do-	Teyagaraujaporum	6	”	”
432.	Caraveeranauda Swamy	-do-	Karaveerun	54	”	”
433.	Augusteeswara Swamy	do-	Nagacoody	12	”	”
434.	Kylausanada Swamy	-do-	Moongacoody	9	”	”
435.	Verdarauja Permall	-do-	-do-	9	”	”
436.	Raumanauda Swamy	do-	Ramalingacovil	18	”	”
437.	Vanogopaula Swamy	-do-	Madapoorum	180	”	”
438.	Raumaswamy	-do-	-do-	27	”	”
439.	Roodracateeswara Swamy	-do-	Roodracoty	180	”	”
440.	Padenchelly Vegraporaswara	-do-	Vadamala	36	”	”
441.	Vissvanauda Swamy	-do-	Calecara	36	”	”
442.	Brumhaporaswara Swamy	-do-	Pavetramaunum	“	7	16
443.	Vissvanada Swamy	-do-	Sandamungalum	12	”	”
444.	Soobramunna Swamy	-do-	Danaporum	4	5	”
445.	Kylausanauda Swamy	-do-	Malemaugalum	6	”	”
446.	Kylausanauda Swamy	-do-	Pullevauraswamy	6	”	”
447.	Volaragocurnaswarar	-do-	Vandampauly	6	”	”
448.	Chocanauta Swamy	-do-	Vaurecody	6	”	”
449.	Ponnauguswara Swamy	-do-	Podopatoor	8	”	”
450.	Verdarauja Permall	-do-	Podopatoor	1	”	”
451.	Vulmecuswara Swamy	-do-	Tremayoporum	9	”	”
452.	Sounderaya Swamy	-do-	Malayore	6	”	”

1	2		3	4		
453.	Vissvanada Swamy	Pag. At	Cooneyore	3	”	”
454.	Somanauda Swamy	-do-	Numbupaudy	15	”	”
455.	Naugaswara Swamy	-do-	Kaudanelloor	3	”	”
456.	Cauranauta Swamy	-do-	Cauranautumcovil	1	5	”
457.	Kylausanauda Swamy	-do-	Pooselungoody	“	7	16
458.	Maudavaporaswarar	-do-	Ponavassel	24	”	”
459.	Vissvanada Swamy	-do-	Panutteyore	18	”	”
460.	Soundaraswara Swamy	-do-	Trepanapata	12	”	”
461.	Soundaraswara Swamy	-do-	Vedeaporam	3	”	”
462.	Roodracatuswara Swamy	-do-	Valecoody	6	”	”
463.	Raujagopaula Swamy	-do-	-do-	6	”	”
464.	Letchmennaurauyana Permall	-do-	Poolungoody	3	”	”
465.	Letchmennaurauyana Permall	-do-	Cannalaporum	3	”	”
466.	Caulahustaswarar	-do-	Vauttoogoody	23	”	”
467.	Chocunauda Swamy	-do-	Curevanoor	3	”	”
468.	Coty Isswarar	-do-	Coodeyamungalum	18	”	”
469.	Soobbramunna Swamy	-do-	Yencon	50	”	”
470.	Vredachella Swamy	-do-	Malateremdeconnon	1	2	”
471.	Nauganauda Swamy	-do-	Keellapoleyore	18	”	”
472.	Brumhaporaswara Swamy	-do-	Tundaly	“	6	”
473.	Naugaswara Swamy	-do-	Parandaracody	“	6	”
474.	Vencatachella Swamy	-do-	Ammiupen	“	6	”
475.	Kylausanda Swamy	-do-	Keelumocondanelloor	“	6	”
476.	Buctavechala Swamy	-do-	Trecanumunga	484	2	8
477.	Soondaraswara Swamy	-do-	Couttoor	18	”	”
478.	Durmapura Swamy	-do-	Vadacundum	10	”	”
479.	Vurdarauja Swamy	-do-	Yalayulunelloor	6	”	”
480.	Aubemuctaswara Swamy	-do-	Pempata	9	”	”
481.	Vycontanaurayana Permall	-do-	-do-	3	”	”
482.	Agusteeswarar	-do-	Manacaul	3	”	”
483.	Sashaporaswarar	-do-	Raupetaswarum	3	”	”
484.	Agusteeswarar	-do-	Deevangoody	“	6	”
485.	Kylausanada Swamy	-do-	Paramunnayore	10	5	”
486.	Permalnauda Swamy	-do-	-do-	1	5	”
487.	Nartanaporaswara Swamy	-do-	Tulayalungaddoo	6	”	”
488.	Neelamaga Permall	-do-	Mulayoor	9	”	”
489.	Soondaraswarar	-do-	Nairecunnamungalum	9	”	”
490.	Somanauda Swamy	-do-	Atcheyalumungalum	12	”	”
491.	Vaunchanauda Swamy	-do	Streevamchem	666	6	20

1	2		3	4		
492.	Vurdarauja Permall	Pag.at	Streevamchem	18	”	”
493.	Audeporaswara Swamy	-do-	Keelagum	3	”	”
494.	Soondaraswarar	-do-	Sauranandoor	6	”	”
495.	Kylausanada Swamy	-do-	Nadanchary	5	”	”
496.	Kylausanada Swamy	-do-	Covilput	3	”	”
497.	Kylausanada Swamy	-do-	Andeeyoor	6	”	”
498.	Somanauda Swamy	-do-	Sangannoor	6	”	”
499.	Soobbaramanneeswara Swamy	-do-	Sennahnelloor	4	5	”
500.	Posoopatuswara Swamy	-do-	Trecundaswaraum	180	”	”
501.	Codombenauda Swamy	-do-	Codamaninar-cottoor	18	”	”
502.	Soundaraswara Swamy	-do-	Trepanyyoor	18	”	”
503.	Raumaswamy	-do-	Moodecondan	25	”	”
504.	Aupauhayaswara Swamy	-do-	Roodracanaca	18	”	”
505.	Verdarauja Permall	-do-	Poontotum	4	5	”
506.	Augusteeswara Swamy	-do-	-do-	4	5	”
507.	Vudaporaswarar	-do-	Pillamungalum	3	”	”
508.	Modovanaswara Swamy	-do-	Nunnellumcovilput	6	”	”
509.	Kylausanada Swamy	-do-	Nauplacopum	3	”	”
510.	Semboonauda Swamy	-do-	Vypoor	6	”	”
511.	Sowreyarauja Permall	-do-	-do-	6	”	”
512.	Agusteeswarar	do-	Malanaduncautaun-goody	12	5	”
513.	Vissvanauda Swamy	-do-	Vadapaudy	12	5	”
514.	Trecaulacutaswara Swamy	-do-	Tremaulumpoga	6	”	”
515.	Veeruttuswarar Swamy	-do-	Veecoody	18	”	”
516.	Caulahusteeswarar Swamy	-do-	Pareyacunnumun-galum	3	”	”
517.	Caulahusteeswarar	-do	Poracalacoody	4	5	”
518.	Agusteeswarar	do-	Keelasoranoor	“	5	”
519.	Nauganauda Swamy	-do-	Vengaduncovil	6	”	”
520.	Veerarauga Permall	-do-	-do-	6	”	”
521.	Trepuyanauda Swamy	-do-	Trepayatungoody	9	”	”
522.	Verdarauja Permall	-do-	Cadabungoody	3	”	”
523.	Sevalocanauda Swamy	-do-	Trevedauramun-galum	6	”	”
524.	Curcha Isswarar	do-	Cutchen	110	”	”
525.	Verdarauja Permall	-do-	-do-	18	”	”
526.	Soondaraswara Swamy	-do-	Colupaud	18	”	”
527.	Augusteeswara Swamy	-do-	Pillayengoody	36	”	”
528.	Nauganauda Swamy	-do-	Paumbodunda-nulloor	3	”	”
529.	Soondaraswara Swamy	-do-	Paungul	2	4	”
530.	Caulahusteeswara Swamy	-do	Curumbeyore	2	4	”

1	2	3		4		
531.	Verdarauja Permall	Pag. at	Paungul	2	4	”
532.	Auroonauchella Swarar	-do-	Keelayore	60	”	”
533.	Kylausanauda Swamy	-do-	-do-	12	”	”
534.	Runganaudaswamy	-do-	-do-	143	”	”
535.	Socanauda Swamy	-do-	Vaulacara	60	”	”
536.	Teyagarauja Swamy	-do-	Trecohala	250	”	”
537.	Verdarauja Swamy	-do-	-do-	18	”	”
538.	Teyagarauja Swamy	-do	Trevoyamoor	100	”	”
539.	Curanjuswara Swamy	do-	Vadoor	6	”	”
540.	Amarauvataswarar	-do-	Cundentelly	3	”	”
541.	Nauganauda Swamy	-do-	Maurauchury	1	2	”
542.	Canacaubaranaswarar	-do-	Panatanoo	40	”	”
543.	Caulahusteeswarar	-do-	Sembayavaloor	1	2	”
544.	Soondaraswarar	-do-	Neelmola	1	2	”
545.	Auroonauchellaswarar Swamy	-do-	Munenedacundum	1	2	”
546.	Muhalingaswarar Swamy	-do-	Trevademaradoor	1	2	”
547.	Vurtamaunaswarar	-do-	Sagul	58	7	16
548.	Runganautaswamy	-do-	Auderangum	25	”	”
549.	Alagenata Swamy	-do-	Deepumbahputnum	3	”	”
550.	Carajotaswara Swamy	-do-	Madaporum	1	2	”
551.	Semboorauta Swamy	-do-	Yalanauyalady	6	”	”
552.	Topanauyakee Ammen	-do-	Sagul	36	”	”
553.	Audasiddaswara Swamy	-do-	Treterapoondy	220	”	”
554.	Nertananauda Swamy	-do-	Tundlachayry	24	”	”
555.	Caulahaustaswara Swamy	-do-	Paumany	5	5	”
556.	Kylausanauda Swamy	-do-	-do-	5	5	”
557.	Chocanauda Swamy	-do-	-do-	5	5	”
558.	Yucambaraswarar Swamy	-do-	-do-	5	5	”
559.	Sovernageraswarar Swamy	-do-	Valoor	3	”	”
560.	Taundonaswarar Swamy	-do-	Pulluncovil	3	”	”
561.	Sevalokanauda Swamy	-do-	Covelungalandy	3	”	”
562.	Mundataundaswarar Swamy	-do-	Pareyasingalandy	3	”	”
563.	Verdarauja Permall	-do-	Pareyasingalandy	3	”	”
564.	Vissvanauda Swamy	-do-	Vettoocuttee	3	”	”
565.	Calahausteeswarar	-do-	Coottoor	135	”	”
566.	Mangambalanadaswamy	-do-	-do-	18	”	”
567.	Vencatachellaputtee Swamy	-do-	-do-	18	”	”
568.	Paurejautavanaswarar	-do-	Trecaulur	75	”	”
569.	Runganauta Swamy	-do-	Valacoly	18	”	”
570.	Nauganauta Swamy	-do-	Tolauchary	3	”	”
571.	Brumhaporaswarar	-do-	Terovalunjoly	24	”	”

1	2	3		4		
572.	Suptarelehaswarar	Pag. at	Yallattoor	45	”	”
573.	Vissavanauta Swamy	-do-	Paneyacottamungalum	90	”	”
574.	Letchmenaurauyana Swamy	-do-	-do-	36	”	”
575.	Rajitaswara Swamy	-do-	Tretangoor	90	”	”
576.	Agraswara Swamy	-do-	Trecolacaud	30	”	”
577.	Soondaraswara Swamy	-do-	Audunoor	3	”	”
578.	Verdarauja Swamy	-do-	Alevalum	3	”	”
579.	Kylausanauda Swamy	-do-	Aundandory	3	”	”
580.	Auronachellaswara Swamy	-do-	Alevalum	3	”	”
581.	Aumuraswarar	-do-	Trenellicauvil	3	”	”
582.	Trecaulasoonduraswarar	-do-	Pooryeyoor	60	”	”
583.	Raumanauda Swamy	-do-	Poottoor	3	”	”
584.	Vencatauchella Putty	-do-	-do-	3	”	”
585.	Pulagerynauda Swamy	-do-	Tunneerecunnum	3	”	”
586.	Raumanada Swamy	-do-	Terooramaswarum	3	”	”
587.	Mauyournauda Swamy	-do-	Karechendraporum	95	”	”
588.	Agusteeswara Swamy	-do-	Sinnacorawaudy	6	”	”
589.	Auronachellaswara Swamy	-do-	Ammunnoor	3	”	”
590.	Soondaraswara Swamy	-do-	Kouttoor	3	”	”
591.	Ambalanauda Swamy	-do-	Talanayer	60	”	”
592.	Puromauneca Permall	-do-	Talanayer	20	”	”
593.	Mahacaulaswarar	-do-	Trecaulum	60	”	”
594.	Andonaswarar	-do-	Mancoody	18	”	”
595.	Vissvanauda Swamy	-do-	Vanamanachary	6	2	16
596.	Esalocanaudaswamy	-do-	Vauttaugoody	3	”	”
597.	Vulmecasunauda Swamy	-do-	Vulmecanauda-nellore	3	”	”
598.	Vaudaswarowoodyar	-do-	Voombalachary	7	5	”
599.	Vurdarauja Swamy	-do-	Gopenaudaporum	10	”	”
600.	Kylausanauda Swamy	-do-	-do-	10	”	”
601.	Aupachahaswara Swamy	-do-	Parcyemala	3	”	”
602.	Agusteeswara Swamy	-do-	Vanyemadoo	3	”	”
603.	Sudgonaswara Swamy	-do-	Yadambavanum	37	5	”
604.	Curpanauda Swamy	-do-	Carpanarcovil	18	”	”
605.	Agusteeswara Swamy	-do-	Trepoondy	150	”	”
606.	Cullananauda Swamy	-do-	-do-	15	”	”
607.	Caumaswarawoodiar	-do-	-do-	7	5	”
608.	Socundavanaswara Swamy	-do-	Poospavanum	65	”	”
609.	Caulahusteeswara Swamy	-do-	Padapully	10	5	”
610.	Enayaluncunna Permall	-do-	Covilput	22	”	”
611.	Amaravataswarar	-do-	Naulevalaputto	7	5	”

1	2	3		4		
612.	Yacambaraswarar	Pag. at	Vullumbalum	7	5	”
613.	Agusteeswarar	-do-	Prataparaumapoda-pattanum	7	5	”
614.	Sevalocunauda Swamy	-do-	Vadagarayaropoo	7	5	”
615.	Alugenauda Swamy	-do-	Navacalapul	18	5	”
616.	Aunacatta Permall	-do-	-do-	12	”	”
617.	Kylausanaudaporum	-do-	Cauiltobolypaul	12	”	”
618.	Gungaudaraswarar	-do-	Paundy	6	”	”
619.	Vanagopaula Swamy	-do-	-do-	3	”	”
620.	Yacambra Swamy	-do-	Ammaneyore	3	”	”
621.	Veerataswara Swamy	-do-	Curaca	20	”	”
622.	Teroverunda Permall	-do-	-do-	9	4	”
623.	Pasopataswara Swamy	-do-	Auyamoor	9	”	”
624.	Autmanauda	-do-	Talacaudo	72	”	”
625.	Sobbramancanauda Swamy	-do-	-do-	6	”	”
626.	Vencatucellaputta	-do-	-do-	12	”	”
627.	Somanauda Swamy	-do-	Veerattee	9	”	”
628.	Gnanaporaswara Swamy	-do-	Teemayacotta	12	”	”
629.	Ranganauda Swamy	-do-	-do-	6	”	”
630.	Muntraporaswarar	-do-	Covilcota	44	”	16
631.	Patau Isswarar	-do-	Bundauravauda-calatoor	12	2	”
632.	Alagenauda Swamy	-do-	Auyacaurumbalum	6	”	”
633.	Yellamaswara Woodiyar	-do-	-do-	9	”	”
634.	Dutchna Caussevi-ssvanaudar	-do-	Panchanadycolum	6	”	”
635.	Soobbramunna Swamy	-do-	-do-	9	”	”
636.	Vadaporaswara Swamy	-do-	Cullemadoo	6	”	”
637.	Byravanauda Swamy	-do-	Taguttoor	18	”	”
638.	Vurdarajapar Permall	-do-	-do-	6	”	”
639.	Vadaurannaswarar	-do-	Vadaurunneyam	341	”	22
640.	Agusteeswarar	-do-	-do-	90	2	”
641.	Vurdaraja Swamy	-do-	-do-	119	”	26
642.	Amortagataswara Swamy	-do-	-do-	90	9	”
643.	Somanauta Swamy	-do-	-do-	5	”	8
644.	Vissvanauta Swamy	-do-	Trivalore	54	6	”
645.	Sooreyunaurauyuna Swamy	-do-	-do-	54	”	”
646.	Kanumunta Swamy	-do-	Munnagody	36	”	”
647.	Vancatachelluputtee	-do-	Sarungalum	90	”	”
648.	Yellummadavy	-do-	Muhadavaputtanum	18	”	”
649.	Vellay Pilliar	-do-	-do-	9	”	”
650.	Hanumunta Swamy	-do-	-do-	9	”	”
651.	Sambomahadavy Swamy	-do-	-do-	54	”	”
652.	Malapata Vissvanada Swamy	-do-	-do-	36	”	”

1	2		3	4		
653.	Kellavaudy Vissvanada Swamy	Pag. at	Muhadavaputtanum	36	”	”
654.	Malavaudy Vissvanada Swamy	-do-	-do-	18	”	”
655.	Meelauvatauchy Ammen	-do-	-do	420	”	”
656.	Swatavenauga Swamy	-do-	Terovalunjoly	273	3	10
657.	Vadavenauya Swamy	-do-	Treehettory	43	7	16
658.	Jagedretchea Swamy	-do-	Audotory	12	5	”
659.	Soondaraswara Swamy	-do-	Audannoor	4	5	”
660.	Runganauta Swamy	-do-	-do-	9	”	”
661.	Raumaswamy	-do-	Pillumbadungoody	62	”	”
662.	Raumalinga Swamy	-do-	-do-	1	5	”
663.	Taurdraswarar	-do-	Mauraupanellor	1	9	16
664.	Runganauta Swamy	-do-	Alvarcovil	9	”	”
665.	Sauchynauda Swamy	-do-	Teroparembeyem	525	”	”
666.	Vijianauga Swamy	-do-	Vejiamunga	15	”	”
667.	Bilvanauda Swamy	-do-	Trevauyavoor	30	”	”
668.	Saumtnauda Swamy	-do-	Sevamimala	250	7	”
669.	Sevundanauda Swamy	-do-	Cullanapado	4	5	”
670.	Malavidenauda Swamy	-do-	Bauporaujaporum	4	5	”
671.	Kylausanauda Swamy	-do-	Tingalore	20	”	”
672.	Vurdarauja Permall	-do-	-do-	22	5	”
673.	Soondarauja Permall	-do-	Parampolyore	37	5	”
674.	Vagaraporaswarar	-do-	-do-	35	”	”
675.	Grataporaswarar	-do-	Tillastanum	36	”	”
676.	Brumhaporuswarar	-do-	Parammoor	3	”	”
677.	Pillamunge Brunhaporaswarar	-do-	Pillamungalum	36	”	”
678.	Pasopataswarar	-do-	Pasopatagoody	12	”	”
679.	Maradaswarar Swamy	-do-	Mautoor	9	”	”
680.	Cullana Soondara Swamy	-do-	Mulloor	240	”	”
681.	Soondrarauja Permall	-do-	Chandrapenmalgoody	102	”	”
682.	Cauremauneya Permall	-do-	Podapadavadoo	9	”	”
683.	Pasopataswarar	-do-	Auvoor	75	”	”
684.	Danaporaswarar	-do-	Puttuswarum	195	”	”
685.	Vissvanauda Swamy	-do-	Molayore	6	”	”
686.	Parasonauda Swamy	-do-	Raumanaudancovil	18	”	”
687.	Raumanada Swamy	-do-	Kylassanaduncovil	4	5	”
688.	Kylausanauda Swamy	-do-	Gopenauduncovil	3	”	”
689.	Gopenaada Permall	-do-	Keelapeleyore	9	”	”
690.	Somenauda Swamy	-do	Teromatalega	12	”	”
691.	Teromatalinga Kylassnauda Swamy	-do-	Venaduncovil	5	5	”
692.	Darmaporaswara Swamy	-do-	Hareechendraporum	4	5	”
693.	Harchendraswara Swamy	-do-	Nauduncovil	1	5	”

1	2		3	4		
694.	Jaganauda Swamy	Pag. at	Trechittumottem	45	”	”
695.	Sevalocundaswary Swamy	-do-	Paupanassum	47	”	”
696.	Streenevassapermall	Pag. at	Vengfaurumpata	375	”	”
697.	Kistna Swamy	-do-	Vengaurumpata	18	”	”
698.	Raumalinga Swamy	-do-	Moollattomsevalaum	100	”	”
699.	Mahaporaswara Swamy	-do-	Covildavarauyempata	12	”	”
700.	Naveneta Kistna Swamy	-do-	Vaumbatovaly	166	6	24
701.	Moloovanauda Swamy	-do-	Terocaracauvoor	270	”	”
702.	Mauleyatadulsoondra Swamy	-do-	Mauteatadul	10	”	”
703.	Chitta Kistna Swamy	-do-	Titta	90	”	”
704.	Vasistaswara Swamy	-do-	-do-	12	5	”
705.	Kylausanauda Swamy	-do-	Solamalega	4	5	”
706.	Vaneatasa Permall	-do-	Naucheyagoody	4	5	”
707.	Strenevassa Swamy	-do-	Teronarayor	666	6	24
708.	Siddanauda Swamy	-do-	-do-	133	3	8
709.	Raumanauda Swamy	-do-	Appandcovil	75	”	”
710.	Appumboromoul	-do-	Alagadrepotoor	2	”	”
711.	Sovarnaparaswara Swamy	-do-	Tencaracogoor	18	”	”
712.	Agrapanaswara Swamy	-do-	Amurtaswarum	18	”	”
713.	Aubemueta Swamy	-do-	Goodalove	90	”	”
714.	Chocanauda Swamy	-do-	Caratataungoody	270	”	”
715.	Vasistawara Swamy	-do-	Naugatty	157	5	”
716.	Bactavechalaswara Swamy	-do-	Vadapady	30	”	”
717.	Vencatasa Swamy	-do-	Keelanemmaly	54	”	”
718.	Nauganauda Swamy	-do-	Malanemaly	162	”	”
719.	Vurdarauja Permall	-do-	Vudavoor	36	”	”
720.	Codundaruma Swamy	-do-	Nelletopoo	333	3	12
721.	Brumhaporaswara Swamy	-do-	-do-	90	”	”
722.	Possoopavanaswara Swamy	-do-	Poondey	12	5	”
723.	Vajraporaswara Swamy	-do-	Aravendoporum	12	5	”
724.	Vanenada Swamy	-do-	Sadyarcovil	3	”	”
725.	Vadaporaswara Swamy	-do-	Trevadygoody	15	”	”
726.	Runganauda Swamy	-do-	Trebovanum	12	5	”
727.	Caulahusteeswara Swamy	-do-	Cutterenuttum	9	9	30
728.	-do-	-do-	Salemangalum	15	”	”
729.	Brumhaporaswara Swamy	-do-	Alungoody	144	”	”
730.	Caravenduswara Swamy	-do-	Vadayacovil	15	”	”

1	2	3		4		
731.	Moodanduswara Swamy	Pag. at	Marttoor	54	”	”
732.	Vurdarauja Permall	-do-	-do-	18	”	”
733.	Vasistaswara Swamy	-do-	-do-	36	”	”
734.	Cullengamurdana Kistnaswamy	Pag. at	Voottoocundoo	108	”	”
735.	Letchmenaurayana Permall	-do-	-do-	36	”	”
736.	Keertavadaswara Swamy	-do-	Solamungalum	54	”	”
737.	Vurdarauja Permall	-do-	-do-	36	”	”
738.	Vurdarauja Permall	-do-	Trecalvoor	54	”	”
739.	Raujagopaula Swamy	-do-	Nullychary	20	”	”
740.	Vejeavadungaswara Swamy	-do-	Adayar	18	”	”
741.	Srauvataswara Swamy	-do-	Namum	18	”	”
742.	Carambuswara Swamy	-do-	Trecaumoor	18	”	”
743.	Soondarswar Swamy	-do-	Sendala	240	”	”
744.	Aununtapudmanada Swamy	-do-	-do-	37	5	”
745.	Kylausanada Swamy	-do-	Vuncatasamoodrum	25	”	”
746.	Agnaswaraswan Swamy	-do-	Terocattopully	150	”	”
747.	Veerahanumunta Swamy	-do-	-do-	36	”	”
748.	Vatamoolaswara Swamy	-do-	Terovaulumbawly	18	”	”
749.	Kylausanaudur	-do-	Parumboor	54	”	”
750.	Vurdarauja Permall	-do-	-do-	45	”	”
751.	Yacumbaraswara Swamy	-do-	Vellumparumboor	36	”	”
752.	Callymunglungnaswara Swamy	-do-	Calemungalum	18	”	”
753.	Sevanauda Swamy	-do-	Chittaragoody	27	”	”
754.	Aupachayaswara Swamy	-do-	Poodaloor	108	”	”
755.	Raumaswamy	-do-	-do-	36	”	”
756.	Vumsoodaranaswaraswamy	-do-	Alloor	18	”	”
757.	Soobbramunnaswara Swamy	-do-	Selleppumpata	18	”	”
758.	Ganasa Swamy	-do-	Pilliarputty	5	”	”
759.	Brumhaswaracuntaswara Swamy	-do-	Candoor	37	”	”
760.	Harensapauvamoosunapermall	-do-	-do-	25	”	”
761.	Poospavanaswara Swamy	-do-	Teropuntory	87	”	”
762.	Verdarauja Permall					
763.	Appaul Ranganauda-	-do-	-do-	18	”	”
	swamy	-do-	Covelady	180	”	”
764.	Devaganaswara Swamy	-do-	-do-	18	”	”
765.	Prataupaveerahanumunta	-do-	Cullany	72	”	”
766.	Jemboocaswara Swamy	-do-	Cassanaud	90	”	”

1	2		3	4		
767.	Baskaraswara Swamy	-do-	Keelavenganad	93	”	”
768.	Soondaraswara Swamy	-do-	Soondaranad	36	”	”
769.	Auroonaujataswaraswamy	-do-	Vaugaranaud	18	”	”
770.	Vullabaswara Swamy	Pag.at	Voratanaud	34	6	24
771.	Akylaundaswary Ammen	-do-	Jembocaswarum	36	”	”
772.	Brahateeswara Swamy	-do-	Fort of Tanjour	5,550	”	”
773.	Brahateeswara Swamy	-do-	-do-	1694	8	28
774.	Prasunnavencataswarar	-do-	-do-	780	”	”
775.	Caulecaudavy	-do-	-do-	72	”	”
776.	Keelasinga Permall	-do-	-do-	120	”	”
777.	Suncaranaurayanar	-do-	-do-	322	”	”
778.	Telagaswara Swamy	-do-	Fort of Tanjore	90	”	”
779.	Sevaganaga Pilliar	-do-	-do-	3	7	16
780.	Vomamana Pilliar	-do-	-do-	3	7	16
781.	Nauganauda Pilliar	-do-	-do-	7	2	12
782.	Sunnadysoondara Suntanapilliar	-do-	-do-	90	0	0
783.	Soobbramunna Swamy	-do-	-do-	36	”	”
784.	Baddraculy	-do-	-do-	17	2	16
785.	Cassievisswanaudaswamy	-do-	-do-	90	”	”
786.	Nadavanauda Soondarapilliar	-do-	-do-	54	”	”
787.	Arcasola Pilliar	-do-	-do-	3	7	16
788.	Teppaurumcutty Pilliar	-do-	-do-	7	2	12
789.	Yellamah Davy	-do-	-do-	126	”	”
790.	Veerabuddrar	-do-	-do-	9	”	”
791.	Munnar Swamy	-do-	-do-	18	”	”
792.	Tercaveedevissvanaudaswamy	-do-	-do-	3	7	16
793.	Anunda Pilliar	-do-	-do-	3	7	16
794.	Curpoora Pilliar	-do-	-do-	3	7	16
795.	Vissvanaudur	-do-	-do-	45	”	”
796.	Vijayaraumachendray Swamy	-do-	-do-	214	”	28
797.	Navaneeta Kistnaswamy	-do-	-do-	90	”	”
798.	Muddana Gopaulaswamy	-do-	-do-	17	4	24
799.	Lutchmy Davy	-do-	-do-	3	7	16
800.	Prataupa Veerahanumuntur	-do-	-do-	640	”	”
801.	Raumaswamy	-do-	-do-	180	”	”
802.	Colayheavencatasa Permall	-do-	-do-	90	”	”
803.	Goronautta Swamy	-do-	-do-	3	7	16
804.	Govindarauja Swamy	-do-	-do-	60	”	“
805.	Bolaka Kistnaswamy	-do-	-do-	13	5	“
806.	Amortavencataswara	-do-	-do-	3	7	16
807.	Chaturboja Vurdaraujaswamy	-do-	-do-	3	7	16

1	2	3		4		
808.	Senjevyroyer	Pag. at	Fort of Tanjore	3	7	16
809.	Codundarama Swamy	-do-	-do-	3	7	16
810.	Gorocaul Senjeevy Permall	-do-	-do-	7	2	12
811.	Adicusava Permall	-do-	-do-	17	4	24
812.	Vurdarauja Swamy			180	”	”
813.	Puttauby Raumy Swamy	-do-	-do-	9	”	”
814.	Janardana Swamy	-do-	-do-	6	8	8
815.	Vadamaurdasangenyroyer	-do-	-do-	3	7	16
816.	Dutchuna Sengeveroyer	-do-	-do-	3	7	16
817.	Runganatta Swamy	-do-	-do-	3	7	16
818.	Teertasenja Permall	-do-	-do-	3	7	16
819.	Noottaloo Permall	-do-	-do-	6	8	8
820.	Aunundavully	-do-	Fort of Tanjore	958	2	28
821.	Causanada Swamy	-do-	-do-	102	9	”
822.	Siddavenooyeaswamy	-do-	-do-	90	”	”
823.	Soodaraswarar	-do-	-do-	54	”	”
824.	Caulahusteeswarar	-do-	-do-	17	4	24
825.	Soondraswarar	-do-	-do-	36	”	”
826.	Codiamah	-do-	-do-	9	”	”
827.	Chocanauda Swamy	-do-	-do-	7	2	”
828.	Malasinga Permall	-do-	-do-	800	”	”
829.	Neelamaga Swamy	-do-	-do-	495	4	24
830.	Manecunda Permall	-do-	-do-	163	”	12
831.	Totumhanumuntur	do-	-do-	90	”	”
832.	Cullanaveneyataswamy	-do-	-do-	72	”	”
833.	Padetory Vencatasa-swamy	-do-	-do-	3	7	16
834.	Codundaramaswamy	-do-	-do-	360	”	”
835.	Maureummah Davy	-do-	-do-	250	”	”
836.	Chendrasacara Swamy	-do-	-do-	54	”	”
837.	Casstvisswanaudaswamy	-do-	-do-	18	”	”
838.	Kylausanaudaswamy	-do-	Puttoocottah	16	5	”
839.	Yanayaluncunnapermall	-do-	-do-	36	”	”
840.	Naudy Ammen	-do-	-do-	52	5	”
841.	Malamaure Ammen	-do-	-do-	1	5	”
842.	Maraduswarar Swamy	do-	Naivaly	10	6	28
843.	Maureammen	-do-	-do-	“	5	8
844.	Pareanyniar	-do-	-do-	5	2	16
845.	Raumalinga Swamy	-do-	-do-	330	”	”
846.	Tremanenaudaswamy	-do-	-do-	13	5	”
847.	Terepanencara Woodiyar	-do-	Vabataroovoo	13	5	”
848.	Moottoomaureeummen	-do-	do-	2	2	16
849.	Cassevisswanaudar	-do-	-do-	180	”	”
850.	Veeramahacally	-do-	Veettoovaucotta	135	2	”
851.	Soondararauja Permall	-do-	Ardungy	65	1	”
852.	Baulahanamunt	-do-	-do-	6	3	”

1	2	3		4		
853.	Veerahanamunt	Pag. at	Ardungy	12	9	16
854.	Ponnombalanaubar	-do-	-do-	50	4	”
855.	Vurdammah	-do-	-do-	3	1	16
856.	Koutta Pilliar	-do-	Arendangy	3	1	16
857.	Raujandracholaswarar	-do-	-do-	1	4	”
858.	Ponavausalaswarar	-do-	Poonanassol	24	”	”
859.	Pinnamaureammen	-do-	-do-	“	5	8
			Total	85,149	6	27
		Equal to Star Pagodas		35,479	2	39
860.	Vadarennaswara Swamy	Pag. at	Vadarenneyum for Assumed Salt Pans	1,848	”	”
				37,327	2	39

SOOBAHS OF TANJOUR GRAIN MOHINS

				Garee	M	M
861.	Compatuswara Swamy	Pag. at	Treboovuni	69	328	”
862.	Codundavauma Swamy	-do-	Munreammencovil	69	328	”
863.	Saneeswara Buhavan	-do-	Trenellaur	12	356	6
864.	Nalanaurauayana Permall	-do-	-do-	”	119	5
865.	Ninarcharry Pilliar	-do-	Nainachary	”	79	6
866.	Pata Pilliar	-do-	Pata	”	79	6
867.	Keelamana Pilliar	-do-	Keelamana	”	39	7
868.	Podoponamoola Pilliar	-do-	Podoponamala	”	39	7
869.	Moopayata Swarar	-do-	Moopayulungoody	”	39	7
870.	Curgungoody Pilliar	-do-	Curgungoody	11	19	7½
871.	Valattamungala Pilliar	-do-	Valattamungalum	”	19	7½
872.	Soobaroyaporum Pilliar	-do-	Soobaroyapoorum	”	19	7½
873.	Nullatunda Swarar	-do-	Nullatundoor	”	79	6
874.	Ambagavatoor Isswarar	-do-	Ambagavatoor	”	79	6
875.	Cunnappooraswarar	-do-	Cunnappoorum	”	19	7½
876.	Puttagoduswarar	-do-	Puttagoody	”	79	6½
877.	Danummahporaswarar	-do-	Davamahporum	”	59	6½
878.	Soracodaswarar	-do-	Soragoody	”	79	6
879.	Causagoody Pilliar	-do-	Causagoody	”	19	7½
880.	Coottoogoody Pilliar	-do-	Coottagoody	”	19	7½
881.	Carambacara Pilliar	-do-	Carambagum	”	39	7
882.	-do-	-do-	Poottagarum	”	39	7
883	Covilputteeswarar	-do-	Covilputt	”	39	7

1	2		3	4		
884.	Muttaugoodaswarar	Pag. at	Muttaulagoody	”	39	7
885.	Keleyennnoora Swarar	-do-	Keleyennoor	”	39	7
886.	Paumpataswarar	-do-	Paumpattee	”	79	6
887.	Vadamottaswarar	-do-	Vadamottum	”	39	7
888.	Abeshacaswarar	-do-	Abeshacacutty	”	79	6
889.	Coutacaharaswarar	-do-	Colacoody	”	39	7
890.	Coutacaharaswarar	-do-	Coatachary	”	99	5½
891.	Trelocanauda Swamy	-do-	Trecauloor	”	99	5½
892.	Satoagusteeswarar	-do-	Savattoor	”	199	3¼
893.	Caacataswarar	-do-	Caucamooly	”	59	6½
894.	Velanauda	-do-	Valadyan	”	179	3¾
895.	Taundanaswara Swamy	-do-	Nellumbalum	”	179	3½
896.	Soundaraswara Swamy	-do-				
897.	Mautacovil	-do-	Tennengoody	”	158	4½
898.	Moottoomaureammun	-do-	Trenellaur	9	39	7
899.	Naivalemaureammun	-do-	Vettoovahcottah	”	9	5½
900.	Jyanar	-do-	Naivaly	”	2	3½
901.	Tanjore Maureammun	-do-	-do-	”	19	1
902.	Valangola Maureammun	-do-	Tanjore	”	3	3¾
			Valangolum	”	1	2¼
			Total Grain Mohins	167	200	4
				S.Pgs.	F.	C.
	@ 19 14 84 Star Pagodas per Garee			3,238	33	29
	Brought Forward			37,327	2	39
	Total Money and Grain Mohins in the Province of Tanjore in Star Pagodas			40,565	35	68

EUROPEAN POSSESSION OF NEGORE MONEY MOHINS

				Ch.	Fs.	C
903.	Nauganaud Swamy	Pag. at	Nagore	360	”	”
904.	Prusunnavencatus Permall	-do-	-do-	360	”	”
905.	Aucheyanauda Swamy	-do-	Keevalore	491	2	14
906.	Padetora Vissvnauda-swamy	-do-	-do-	3	”	”
907.	Anuntuswarar	-do-	-do-	3	6	”
908.	Annamagulaswarar	-do-	-do-	5	4	”
909.	Vencatuchella Permall	-do-	-do-	40	”	”
910.	Durmaporaswarar	-do-	Poottoor	7	2	”
911.	Vadaporaswarar	-do-	Covilvaduauchary	5	2	”
912.	Chittumbaraswarar	-do-	Attypolenyore	13	6	”
913.	Nauganaudaswamy	-do-	Neelapude	3	2	”

1	2		3	4		
914.	Cudgaporaswarar	Pag.at	Coprocotty	16	2	”
915.	Agusteeswarar	-do-	Auttoor	1	”	”
916.	Bilvanaudaswamy	-do-	Yeroyamohary	1	8	”
917.	Vudaporaswarar	-do-	Vodayaporum	19	2	”
918.	Polangodaswarar	-do-	Poolangoody	1	6	”
919.	Brumhaporaswarar	-do-	Tovaracody	2	2	”
920.	Navaneeta Swarar	-do-	Sichel	203	”	28
921.	Vaumana Permall	-do-	-do-	28	”	”
922.	Vissvanada Swamy	-do-	Varatoor	16	”	”
923.	Varatta Permall	-do-	-do-	12	”	”
924.	Natana Isswarar	-do-	Podochary	24	”	”
925.	Aununtanaurayana Permall	-do-	Malobaranadavy	28	”	”
926.	Alungoody Iswarar	-do-	Alungoody	12	”	”
927.	Caulahusteeswarar	-do-	Trecanacody	24	”	”
928.	Daumodara Narayana Permall	-do-	-do-	88	”	”
929.	Covoraswarar	-do-	Covoor	16	”	”
930.	Naunoottenauyacar	-do-	Pareyacadumbanoor	12	”	”
931.	Davoporaswarar	-do-	Tavoor	233	8	24
932.	Pasopataswarar	-do-	Covilputt	15	2	”
933.	Vootta Raswarar	-do-	Bundauravaudy	14	”	”
934.	Davanaurauyana Permall	-do-	-do-	17	6	”
935.	Elopayooraswarar	-do-	Elopayoor	12	”	”
936.	Permall Covil	-do-	Elopayoor	12	”	”
937.	Sootavanaswarar	-do-	Sottanam	2	4	”
938.	Poledacoodaswarar	-do-	Poledacoody	16	”	”
939.	Puttamungalaswarar	-do-	Puttamungalum	2	5	”
940.	Vudacaulatoor Isswarar	-do-	Vudacullatoor	13	6	”
941.	Vadacaulutta Permall	-do-	-do-	12	”	”
942.	Tercaulatooraswarar	-do-	Teraulatoor	4	”	”
943.	Raudaumungalaswarar	-do-	Raudaumungalam	1	2	”
944.	Eroocaswarar	-do-	Erca	24	8	”
945.	Keeluvenmanaswarar	-do-	Keelvenmany	1	2	”
946.	Anacodeeswarar	-do-	Anacoody	1	4	”
947.	Moddannoor Isswarar	-do-	Moddannoorwoo-coodal	1	2	”
948.	Paasopataswarar	-do-	Adeyacamungalum	10	6	”
949.	Vencatachella Permall	-do-	-do-	4	”	”
950.	Vissvanauda Swamy	-do-	-do-	40	8	”
951.	Nadagodaswarar	-do-	Nadacoody	6	4	”
952.	Podacharaswarar	-do-	Poduchary	4	”	”
953.	Caunoraswarar	-do-	Cunnoor	2	”	”
954.	Samungala Permall	-do-	Samungalum	4	”	”
955.	Kvedacumbulanaudaswamy	-do-	Velevalum	263	4	”
956.	Yacachacara Permall	-do-	-do-	6	”	”
957.	Cauragoody Permall	-do-	Cauragoody	1	2	”
958.	Teyagarauja Swamy	-do-	Trecallyvassel	720	”	”

1	2		3	4		
959.	Covilcunnaswarar	Pag.at	Covilcunnaporum	72	”	”
960.	Naguswarar	-do-	Nagulloor	2	”	”
961.	Keelacoodaswarar	-do-	Keelagoody	23	8	4
962.	Keelacoody Permall	-do-	-do-	4	6	”
963.	Vedumgulloraswarar	-do-	Vedumgullor	36	”	”
964.	Vadaporaswarar	-do-	Settyacoody	55	6	”
965.	Maunelloraswarar	-do-	Munaloor	3	6	”
966.	Maunelloor Permall	-do-	-do-	3	6	”
967.	Keelacavadcooda Isswarar	-do-	Keelacavergody	36	”	”
968.	Kylausanaudaswamy	-do-	Sembayamahadavy	166	3	”
969.	Raujagopaula Permall	-do-	Raujagopalaporum	17	5	”
970.	Teromanealagur	-do-	Oyvanilloor	36	”	”
971.	Vissvanauda Swamy	-do-	Cinnatumboor	16	”	”
972.	Singemungalaswara	-do-	Singanamungalum	30	5	24
973.	Vadalloraswarar	-do-	Vadalore	12	”	”
974.	Vadalloor Permall	-do-	-do-	12	”	”
975.	eranjeyooraswarar	-do-	Eranjeyoor	2	4	”
976.	Maugaulaswara Swamy	-do-	Maugally	21	3	”
977.	Maugauley Permall	-do-	-do-	6	2	”
978.	Chintaumanaswarar	-do-	Chintaumany	1	2	”
979.	Caurapadaugaswarar	-do-	Caurapadauga	4	”	”
980.	Mudaporum Permall	-do-	Mudaporum	1	2	”
981.	Andupora Pilliar	-do	Andaporum	“	7	”
982.	Condeyooreeswerm	-do-	Condeyore	2	8	”
				3,813	”	30
				1588	33	11
				40565	35	68
				42153	68	79

NEGAPATAM MONEY MOHINS

				Chs.	Fs.	Cs.
983.	Meelauyatausheummen	Pag.at	Negapatam	394	1	19
984.	Teyagarauja Swamy	-do-	-do-	89	2	”
985.	Podotora Vissvanaudur	-do-	-do-	10	8	14
986.	Cutteapper	-do-	-do-	6	8	14
987.	Comara Swamy	-do-	-do-	77	”	16
988.	Alageyar Soondaraswarar	-do-	-do-	11	8	14
989.	Veerabuddraswamy	-do-	-do-	6	8	14
990.	Amaranaudaswarar	-do-	-do-	31	8	10
991.	Hemeteeswarar	-do-	-do-	6	8	14
992.	Nadavanauda Swamy	-do-	-do-	54	3	20
993.	Settyapper	-do-	-do-	32	8	24

1	2	3		4		
994.	Soundarauja Permall	Pag.at	Negapatam	45	2	20
995.	Agusteeswarar	-do-	-do-	109	1	21
996.	Kistnaswamy	-do-	-do-	7	5	”
997.	Kylassanauduncovil	-do-	-do-	45	4	24
998.	Vootoora Swarar	-do-	-do-	9	2	”
999.	Kylassanaudu Swamy	-do-	-do-	3	1	”
1000.	Corocanaudur	-do-	-do-	4	9	”
1001.	Comalunauda Swamy	-do-	-do-	4	“	”
1002.	Mageeswara Pilliar	-do-	-do-	7	2	”
1003.	Settunauda Swamy	-do-	-do-	12	9	”
1004.	Valeporaswarar	-do-	-do-	2	6	”
1005.	Manumany Pilliar	-do-	-do-	3	6	”
1006.	Talegaswarar	-do-	-do-	1	2	”
1007.	Annahmalanaudaswamy	-do-	-do-	“	3	”
				979	1	”
		Equal to Star Pagodas		407	40	20
		Brought forward		42,153	68	79
				42,561	08	99

DEEVECOTTAH MONEY MOHINS

1008.	Sevalocatogur	Pag.at	Aucheyapoorum	12	”	”
		equal to Star Pagodas		5	”	”
		Brought Forward		42,561	08	99
				42,566	08	99

GRAIN MOHINS

				Garee	M	M
1009.	Sevalogatogur	Pag.at	Anchauporum	15	262	3
1010.	Codundavauma Swamy	-do-	Nelloor	3	74	5
1011.	Teromungalugaswarar	-do-	Mahandrapully	2	295	4
1012.	Codunduraumaswamy	-do-	Deevecottah	2	121	7
1013.	Subaubaty	-do-	-do-	”	173	5
		Total Grain Mohins		24	128	”
		@ 19 14 8 Star Pagodas per Gare		471	20	40
		Brought Forward		42,566	08	99
				43,037	29	39

Cutcherry of the Collector of Tanjour
14th April 1813

John Wallace
Collector

List of Individuals in Tanjore receiving Revenue Assignments

No.7:ACCOUNT PARTICULARS OF PENSIONS IN THE PROVINCE OF TANJORE FOR FUSLEE 1222 (Pro 22.4.1813)

Since the cession of Tanjore to the Company

Name of Pensioners	Amount of the Pension per Annum		
	S.Pgs	F.	C.
Soobbah Sastry Trecaulaseven	22	22	40
Brumhanunda Byroyee	7	22	40
Sooreyanaurauyana Sastry	15	”	”
Runjunshaw Fukeer	22	22	40
Anayaroovan	10	”	”
Ayachittoo	6	11	20
Vencata Deechadar	6	11	20
Tonapa Bauvahjosee	3	5	50
Arnauchella Sastry	3	5	50
Puttoocottah Sastry	3	5	50
Rumdass Baugavat	3	5	50
Soobbah Bhut	1	25	25
Trimala Baugavat	1	25	25
Sauma Baugavat	1	25	25
Kistna Avaduny	1	25	25
Cumbaloor Seenevassau Charry	15	”	”
Cundayveena Baugavat	1	30	”
Aluhery Bhut	10	18	60
Raumaswarum Annachuttrum	208	15	”
Cundyveena Baugavat	2	41	20
Chittqady Vencatunaraisimma Charry	14	26	20
Tadokoseenevassau Charry	1	11	20
Vissvaputta Letchmanau Charry	1	11	20
Auntau Charry	1	11	20
Narasimma Charry	1	11	20
Nariyenna Deechadar	7	36	45
Raumgaya Soobbahbut	3	5	50
Taroonaugany Deechadar	5	9	30
Auyachit Soobahbut	3	10	25
Narasimma Charry	2	3	60
Vencatabut	2	3	60
Mauselaumoney Pundaurum	5	9	30
Ogandepundaurum	3	5	50
Raumaga Narayana Deechadar	4	22	40
Pareyamadum Pundaurum	2	3	60
Mahadava Bhut	5	9	30
Chidumbra Pundaurum	5	24	30

Name of Pensioners	Amount of the Pension per Annum		
	S.Pgs	F.	C.
Streevassau Charry	5	9	30
Auyachut Nundeecaswara Bhat	5	9	30
Davoroya Sastry	5	9	30
Mahaganaputy Deechadar	5	9	30
Aunayarovan	1	25	25
Chickap Naick (1806 January 9th)	96	”	”
Raumaswamy	75	”	”
Veeroonduuvana Raumaswamy	75	”	”
Ramayana Kistna Sastry	15	”	”
Brummah Nunda Pyrauye	82	22	40
Soobbarow	22	22	40
Durmaseravana Dondu Bhut	18	33	60
Asoorutty Purducmuna Bramoney	6	11	20
Saumyvada Soobramoneyajosee	6	11	20
Yadoovadee Soobbah Avadany	3	5	50
Roogvada Raugoovabhut	3	5	50
MoocoondaBrummah Charry	60	”	”
Gopaulavencajosee	12	22	40
Survoottama Gosamy	9	16	70
Soobaunogary Gosamy	12	22	40
Suncara Davur	3	5	50
Namunvencata RaumaBagavat	20	”	”
Rauchoor Seenevassaucherry	16	30	”
Kistnacharry	12	”	”
Vidinaudunpattah Dunnepundal	20	22	40
Keelavunganaud & Verotanaud Tunny Pundal	7	22	40
Nine Naud Tunnipundal	7	22	40
Annicut Tunnipundal	6	25	25
Nadovacottah Videnauda Sastry	2	22	4
Pooraunum Gopaulachary	1	39	30
Pooraunum Seenevassahcharry	1	25	25
Munnargoody Bagavut	4	7	40
For Leathjering Nagaraus in Nayoor Musque	4	7	40
For Keeping light in the Church of Ranganaudaswamy	90	”	”
For Tolusy Archany of Ranganaudaswamy	30	”	”
For Tausoogadies or Clock Strucker	22	22	40
Sincara Pundary	16	39	30
For Anomar Church in the Cauvary Bank	15	”	”
For Curtallangoody Vassestoowavar Church	7	22	40
Narriany Auchary	3	33	60
Viendramadum Narriany Charry	3	33	60
Ahelandasenen	7	22	40
Gungadarapundit	7	22	40
Pundarapoor Vittalagosamy	15	”	”
Woodavachittana Bauljee Gosamy	37	22	40

Name of Pensioners	Amount of the Pension per Annum		
	S.Pgs	F.	C.
Trevaulungaud Baskara Deechadur	20	”	”
Vignaswarar	1	11	20
Saurungapauny Swamy	5	”	”
Suckrapauny Swamy	5	”	”
Mungalanauyaky Davy	5	”	”
Vaunatory Raumeu Charry	5	”	”
Chuckra Pauny Kistna Charry	3	33	60
Tummunnal Charry	1	11	20
Dummuntry Vencautau Charry	2	22	40
Woopaucary Kistna Charry	5	”	”
Juyateertau Charry	3	33	60
Poornau Charry	2	22	40
Mooloovauga Vencannau Charry	1	11	20
Raumayana Nursimma Charry	5	”	”
Alagery Aucharry	1	11	20
Yudoorvady Vencatau Charry	2	22	40
Anunta Teertau Charry	5	”	”
Moodgul Nursimma Bhut	2	22	40
Govindau Charry	2	22	40
Jnaucharry	3	33	60
Appana Charry	3	33	60
Pudmanau Charry	5	”	”
Appana Bhut	7	22	40
Buttuvuchula Saragfeveya Charry	1	11	20
Mutaporaunum Kistna Charry	1	11	20
Causkeer Ram Bhut	2	22	40
Ranganauda Charry	5	”	”
Koamalacada Streenevassa Bhut	5	”	”
Tautau Charry	5	”	”
Poorauna Ragapady Iyengar	2	22	40
Doda Charry	2	22	40
Baurada Rungayengar	2	22	40
Aurauvomothy Iyengar	1	11	20
Streemunnaurauyana Iyengar	2	22	40
Jose Kistnayengar	5	”	”
Vyda Rogaputtyengar	2	22	40
Soobbauvadauny	5	”	”
Josee Vencataputty Iyengar	2	22	40
Sadagopa Iyengar	1	11	20
Sauvatryporum Vydanaudiah	5	”	”
Kistna Sastry	5	”	”
Yalundory Treyembaubut	2	22	40
Mungaputty Sastry	3	33	60
Nurrain Bhut	2	22	40
Koombaswara Padetory Gungadariah	2	22	40
Mullahara Bhut	6	11	20
Sadaseva Bhut	5	0	0

Name of Pensioners	Amount of the Pension per Annum		
	S.Pgs	F.	C.
Chuckrapauny Deechadur	5	”	”
Kistna Deechadur	1	11	20
Pudmanauba Sastry	5	”	”
Dabeer Agraharum Rutnagerachitto	3	33	60
Kistna Bhut	7	22	40
Baubakistna Sastry	7	22	40
Cooppauvadauny	7	22	40
Jembhut	7	22	40
Teromala Sastry	7	22	40
Appausaustry	3	33	60
Nairain Sastry	2	22	40
Chentaumany Bhut	2	22	40
Vadavaudiar	2	22	40
Anuntajosee	5	”	”
Vencataraumajosee	5	”	”
Donda Bhut	5	”	”
Raumakistna Deechadur	2	22	40
Soobbau Sastry	2	22	40
Yalundory Trecaula Seven	2	22	40
Vadavassau Charry	7	22	40
Tatucsreenevassau Charry	7	22	40
Jnaucharry	3	33	60
Stremoorty Narahary Charry	5	”	”
Agnehotry Narahary Charry	3	33	60
Annuntaleertau Charry	3	33	60
Suncaranarain Charry	3	33	60
Streenevassau Charry	6	11	20
Bheemaroya Charry	3	33	60
Muddarjanahansmuntapoojau RaumauCharry	3	33	60
Avadany Narain Charry	5	”	”
Sama Charry	1	11	20
Vecunnah Charry	2	22	40
Vencataroy Charry	3	33	60
Davalu Narain Bhut	3	33	60
Conare Bhua	7	22	40
Vausoodavabhut Son of Raujan Bhut	6	11	20
Soodarena Iyengar	3	33	60
Soobbaramunna Sastry	5	”	”
Jembookaswara Akelaundaswary Ammen	6	”	”
Aupasencara Sunnassa Bhut	12	”	”
Covelady Stalapooraunecum Poornau Charry	6	”	”
Pttaswara Bahateeswara Pukeer	15	”	”
Tirvengada Raumalinga Sastry	7	22	40
Anoosoorlah Fakeer	7	22	40
Sencarau Charry	1926	30	”

Name of Pensioners	Amount of the Pension per Annum		
	S.Pgs	F.	C.
Toolaucauvery Brumony	20	37	40
Nadungolly Streemenassau Charry	1	11	20
Kistnumbhut of Keelauna Modo	“	42	75
Kavoor Kistna Bhut	8	15	”
Kuntaveenaw Baugavut	3	5	50
Chananam Caupoor Aggraurum Bramin	8	15	”
Vallavoor Sushageryjosee	8	1	70
Manacoody Vencataswara Deechadur	6	15	75
Trelace Kusba Vencata Bhut	“	6	45
Alunchary Roockood Iyengar	“	44	42
Sooramoola Yeggaswara Deechadur	3	2	65
Cholavur Letchmana Charry	“	37	40
Curputtycharry Vencata Sastry	1	25	25
Ammayapen Streenevassau Charry	“	28	10
Carnaudapoor Rauja Gopauliyengar	4	7	40
Tutvachary Veerraugava Avadauny	6	25	25
Vadagoody Nursimmabhutter	2	22	40
Trelacka Ragavabhutter	“	28	10
Kuntavana Bagavat	5	9	30
Letchamana Sastry of Coatchary Mauganum	12	22	40
Seallay Raumaw Sastry	11	44	5
Trevengaud Raugava Sastry	11	24	30
Ambala Magaunum Aununtaubuttar	12	9	30
Munangoody Letchmana Naurauna Sastry	8	15	”
Tertoneporum Nursimmah Charry	13	9	30
For Tausoogadees Clock Stucker	13	33	60
Tolucauvery Bramany	20	37	40
Trivendoor Stalaporaunikum Streenevassau Charry	1	11	20
Pundanulloor Letchmana Charry	2	16	70
Arasoor Kistna Bhut	2	30	38
Noyjee Treyembuc of mahoba	8	40	25
Nadotta Venca Charry	21	39	30
Letchmanacharry	3	40	25
Valatoty Anunta Bhut	2	30	38
Saraswatee Videe	2	8	35
Kistchauvidee	1	38	30
Treavembanelloor Kistna Bhut	1	30	30
Poottamungalavadavadaunier	“	24	45
Stree Moorty Varahary Charry	2	4	45
Kadagum Rauma Sastry	2	3	60
Kadagum rauma Sastry	3	43	10
Kally Narsimma Bhut	“	37	40
Alungoodyar Bhut	“	25	60
Trivendanellor Kistna Bhut	“	7	40
trichittumbalum Kistna Bhut	6	34	55
Bhootungoody Vencataroya Sastry	3	5	50

Name of Pensioners	Amount of the Pension per Annum		
	S.Pgs	F.	C.
Sereyadumboor Cadumbaswara Sastry	3	18	60
Valatoty Sincura Sastry	2	24	30
Durmy Suncara Sastry	6	11	20
Koolasacavanulloor Soobbramunna Sastry	1	7	40
Ilooppaputtay Vittalachary	5	19	55
Agrapolamungoody Veeraraugova Litchada Agnehotry	3	26	20
Valetory Kistna Sastry	2	8	35
Kooroochey Kistna Bhut	2	8	35
Vacauramaure Sashageryauchaury	7	30	”
Curpoor Raumah Bhut	1	34	55
Cauvuttoor Munnariengar	“	41	20
Alungoody Sasha Bhut	1	25	25
Poledagoody Raumau Sastry	“	15	”
Sellapumpatah Arealoor Streenevassah Bhut	“	11	20
Curpoor Raumah	“	8	35
Kylausa Bhut	1	1	70
Nadotilloo Raumaucharry in the Village of Iluppaputty	1	1	70
Trimangachary Oblayengar	“	16	3
-do- Kistnyengar	“	41	20
-do- Raumayana Vencataputty	“	15	75
-do- Vencatyengar	“	37	40
-do- Chengamyah	“	3	60
-do- Raujagopaulyengar	1	30	”
-do- Stalanassa Bramony	4	28	48
Terkamuttoory Narrainjosee	1	41	20
Keelamundoor Narainjosee	“	19	17
Vakauramaure Vencatau Charry	3	9	30
Selluppumpata Stalaporaunikum Nursimma Charry	2	22	40
Selluppumpatay Suttay Pundaurum	“	39	”
Kayooryeggaswara Sastry	1	15	2
Atepaurum Prasunna Rauma Deechadar	“	37	”
Tervamaudauporum Soobbaumalaseven	4	7	70
Valutoteepresunna Rauma Deechadar	1	30	”
-do- Trimulauchary	“	7	2
Cauvanoor Prasunna Rauma Deechadar	5	”	”
Aulunjary Prasaraumajosee	1	1	70
Neeopa Prasunnarauma Deechadar	1	30	”
Poottamungalum Gupapatechul	“	28	10
Adettamungalum Narrain Sastry	3	31	31
Valatoty Sully Puttaurum	“	19	55
Ilooppaput Vencatacharry	“	9	30
Cansungoody Vencatarauma Sastry	11	18	60

Name of Pensioners	Amount of the Pension per Annum		
	S.Pgs	F.	C.
Vencataswara Avadany & Nursimma Avadany	8	1	70
Poottoor Kistnaucharry	2	22	40
Raumakistna Sastry	4	”	”
Anuntaraumau Sastry	4	”	”
Vencata Soobbau Sastry	5	”	”
Vencapiah	2	”	”
Vissvanaud Sastry	3	”	”
Moodiah Sastryu	1	18	60
Cullana Rauma Baugavat	2	41	20
Punchanatee Sastry	2	22	40
Seven	1	”	”
Soobaravaura Cutty	2	22	40
Teroovadenaudavanum	1	22	40
Mauselaumany Pundaurum	2	22	40
Yettungoody Valur	1	22	40
Raumalingum	“	11	20
Navarautry Bramin	1	3	60
Deepavala Bramin	“	39	30
Vencutarauchelliah	“	3	60
Yeswaripiah	“	3	60
Tumberan	“	5	50
Sarusvateepoojuh	1	19	55
Venauyacachatoorly	“	30	”
Teroovaudetory	1	30	”
Moodegalah Sastry	“	18	60
Vencatachella Sastry	“	18	60
Yacaudose Cutty	“	37	40
Suneranty Braminy	“	22	40
Vadaprauna Bramin	“	26	20
Couttay Soobbah Sastry	2	18	60
Cachalapien	“	18	60
Varahachurry	“	37	60
Savoor Permal Iengar	“	33	60
Widow Mossel (1812 October 9th)	144	”	”
Mrs Aler (1812 October 9th)	96	”	”
Mr. Battger (1805 March 30th)	180	”	”
Widow Swanseyer (1805 January 22nd)	120	”	”
Widow Swart (1806 July 6th)	60	”	”
Widow Saulfield (1806 March 1st)	60	”	”
Vencatauchelliah Hurcaurah	46	22	40
Kistnaureddy Deloyets	24	”	”

Name of Pensioners	Amount of the Pension per Annum					
	S.Pgs	F.	C.			
CARRICAUL						
Widow Fernandez (1805 March 30th)	74	6	72			
P. Clement (1810 August 10th)	51	19	22			
G. Gaudart (1810 August 8th)	51	19	22			
Widow Brindell (1812 April 3rd)	34	12	68			
Antony Santo Laflair (1812 April 3rd)	17	6	34			
GRAIN PENSIONS TANJOUR						
	S.Pgs	F.	C.	Garee	M.	M.
To the Annadauna Chettrum at Trivalore for the Benefit of Pilgrims to Raumaswarum @ 19 14 8 3/4 Star Pagodas per Garee	308	18	34	15	380	0
To a Chottarum on Island of Raumaswarum for the Benefit of Pilgrims	219	34	46	11	146	2½
To Teyagaraujaporum Chuttrum	119	11	66	6	67	2
To Strepaudaswamy Church at Nauchiargoody	141	27	53	7	129	4½
To Punchaupeshaca Sastry	11	11	20	0	232	6
To Ramah Sastry	5	19	74	0	112	5
To Treyemback Isswrar Calender Bramin	18	33	60	0	387	7
To Mirtinja Jose	18	33	60	0	387	7
To Gopaula Jose	18	33	60	0	387	7
To Vencata Jose	18	33	60	0	387	7
To Chundracara Jose	12	22	40	0	258	4¾
To Baulakistna Jose	12	22	40	0	258	4¾
To Soobbah Jose	12	22	40	0	258	4¾
To Jyaviyengoor Jose	12	22	40	0	258	4¾
To Aunayarovan Paroomparien	2	15	53	0	48	4
Total Grain Pensions of Tanjore				933	4	26
Total Tanjore Province				5,929	42	26

Cutcherry of the Collector of Tanjore 14th April, 1813

John Wallace
Collector

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DHARAMPAL • *COLLECTED WRITINGS*

Volume IV

PANCHAYAT RAJ AND INDIA'S POLITY

DHARAMPAL • *COLLECTED WRITINGS*

Volume I
Indian Science and Technology in the Eighteenth Century

Volume II
Civil Disobedience in Indian Tradition

Volume III
The Beautiful Tree: Indigenous Indian Education
in the Eighteenth Century

Volume IV
Panchayat Raj and India's Polity

Volume V
Essays on Tradition, Recovery and Freedom

PANCHAYAT RAJ
AND INDIA'S POLITY

by
Dharampal

Other India Press
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Panchayat Raj and India's Polity
By Dharampal

This volume comprises two separate books:

Panchayat Raj as the Basis of India's Polity
First published April, 1962 by the Association for Voluntary Agencies in Rural Development (AVARD)

The Madras Panchayat System
First published October, 1972 by the Balwantray Mehta Panchayati Raj Foundation

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Volume IV contains the full text of two separate books by Dharampal on Panchayat Raj. The first, *Panchayat Raj as the Basis of Indian Polity,* was published in 1962. The second, *The Madras Panchayat System,* was published in 1972. A fresh preface has been written by Dharampal on the occasion of the publication of the present (combined) volume.

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Preface

(This preface was written by Dharampal specially for this combined edition of his two books on Panchayat Raj.)

After its publication at the end of 1957, much excitement and expectation was aroused from the report of the Committee on Plan Projects, more popularly known as the report of the Balwantray Mehta Committee. The Committee urged that the state rural development programmes be managed by statutorily elected bodies at various levels: the village, the community development block and the district; and termed the arrangement 'panchayat raj'. Within months, these bodies began to be created through laws enacted in each state of India. The administration of development under the management of these bodies started with Rajasthan in early 1959.

Within a year or two of this beginning, interested groups began to explore what was happening under this arrangement. Many studies of this new programme got undertaken by 1960 or 1961. The Association of Voluntary Agencies for Rural Development (AVARD), Delhi, was also seriously interested in what was happening and took up on-the-spot studies of the programme, first in Rajasthan, and next in Andhra Pradesh. From this, AVARD moved on to a study of the proceedings of India's Constituent Assembly during 1947-49 on the subject of the place of panchayats in India's polity. The full debate on the subject was put together by AVARD in early 1962, published under the title *Panchayat Raj as the Basis of Indian Polity: An Exploration into the Proceedings of the Constituent Assembly*. The publication opened up a somewhat forgotten chapter on the subject and aroused much discussion and interest. The idea of this exploration was initially suggested by my friend, L.C. Jain.

The earlier AVARD studies and *Panchayat Raj as the Basis of Indian Polity* led to the suggestion that post-1958 panchayat raj programmes should be studied in greater depth. This view was also shared by the then central Ministry of Community

Development and Panchayati Raj, as well as by the National Institute of Community Development. It was also then felt that the most appropriate body to undertake this study would be the All India Panchayat Parishad (AIPP). After various consultations, it was decided, by the end of 1963, that the first such study should be of the panchayat system in Madras state, i.e., in Tamilnadu. The Rural Development and Local Administration (RDLA) Department of Tamilnadu welcomed the idea of the study and extended all possible cooperation and support to it. The Additional Development Commissioner of Tamilnadu, Sri G. Venkatachellapaty took personal interest in the study and arranged matters in a way that the AIPP study team had access to most of the records of the RDLA Department up to 1964. The study also had the advice and guidance of Sri K. Raja Ram, President of the Tamilnadu Panchayat Union, and of Prof R. Bhaskaran, Head of the Political Science Department of Madras University. Sri S.R. Subramaniam of the Tamilnadu Sarvodaya Mandal, a prominent public figure of Madras, was also of great help. The study also had the continued support of the National Institute of Community Development, and of its Director and scholars.

The study got underway in early 1964 and ended in December 1965. *The Madras Panchayat System* was written during the latter half of the year 1965, and some final touches were given to it in January 1966. The material on late 18th and early 19th century India and the policies adopted by the British at that time, referred to in *Chapter V: The Problem*, was also examined during 1964-1965 in the Tamilnadu State Archives. As the present author had occasion to be in London during August-October 1965, he also had an opportunity to peruse some additional *circa* 1800 material at the India Office Library and the British Library, London.

This study, done during 1964-1965, would appear dated today. The post-1958 panchayat institutions, constituted on the recommendations of the Balwantrai Mehta Committee Report, assumed a low profile after 1965. Ultimately they began to decay—more or less in the same manner as these institutions had done several times after they began to be established by the British in the 1880s. However, during the last decade or so, new panchayat institutions are being created, with much larger claimed participation of women and members from the Scheduled Castes and Scheduled Tribes, and with far larger resources, even in terms of proportion of state government budgets, than those allotted to them in the 1920s. Despite all the claimed changes, it is possible that the new institutions have not acquired any more initiative, or control over their resources, or over what they do—than their predecessors after about 1925.

Regarding the late 18th and early 19th century background (briefly referred to in Chapter V), there is a vast amount of material relating to this in the British records of the period for most parts of India. Some indications of how Indian society actually functioned before it came under British dominance, and how it began to get impoverished and its institutions fell into decay because of British policies, are provided, amongst others, in some of the work I have been able to do after this study on the Madras Panchayat System. A detailed study based on *circa* 1770 palm-leaf records in Tamil, now held in the Tamil University, Thanjavur, (partial versions of them are in the Tamilnadu State Archives), relating to the complex institutional structure, details of agricultural productivity, the caste-wise and occupational composition of each and every locality, and other details of over 2000 villages and towns of the then Chengalpattu district is at present going on at the Centre for Policy Studies, Chennai. These studies, when completed, should enable us to gain more knowledge about our society and its self-governing institutions and system before the era of British domination.

Sevagram, Dharampal
December, 1999

Book I

Panchayat Raj as the Basis of Indian Polity

An Exploration into the Proceedings of the Constituent Assembly

…There are seven hundred thousand villages in India each of which would be organised according to the will of the citizens, all of them voting. Then there would be seven hundred thousand votes. Each village, in other words, would have one vote. The villagers would elect the district administration; the district administrations would elect the provincial administration and these in turn would elect the President who is the head of the executive…

—Mahatma Gandhi

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Foreword

Shri Dharampal, secretary of the Association of Voluntary Agencies for Rural Development (AVARD) has performed a great service in digging up from the voluminous proceedings of the Constituent Assembly all relevant material regarding the place of *panchayat raj* in the political structure of free India. A study of the material presented here would fill any one who has the least concern with Indian democracy with sorrow. During the freedom struggle, because of Gandhiji's formative influence upon the political thinking of those who fought for freedom, it was more or less taken for granted that *gram raj* would be the foundation of *Swaraj*. In other words, the concept of political and economic decentralisation was axiomatic with the fighters for freedom. But when the Constitution came actually to be constructed, that concept somehow was forgotten, or, to be more precise, remembered only as an after-thought. The present widespread practice in the ruling circles of showering seasonal, fulsome praise on Gandhiji and neglecting him in practice seems to have had its beginnings right at the outset of our freedom, when Gandhiji was still present in flesh and blood.

There was, perhaps, a subconscious thought in the minds of the political leaders who followed Gandhiji that while in the enforced condition of disarmament of the Indian people, Gandhiji's technique and philosophy of *satyagraha* were useful in the struggle for freedom, his ideas were not relevant to the tasks of post-freedom reconstruction. This thought was never clearly formed in the minds of the political leaders, who would have most indignantly rejected any such suggestion. I suspect, however, that from the beginning that subconscious thought has influenced the practical policies that the new rulers of the country have followed since independence.

Be that as it may, it is rather remarkable that it should have been believed at the time that constitution-making was the job of lawyers and constitutional experts. All constitutions that were framed after successful revolutions, had been the work of the revolutionary leaders themselves, the experts doing no more than giving their ideas a legal framework. Unfortunately, in our case, even the distinguished lawyers to whom the task had for all practical purposes been entrusted seem to have performed their functions rather perfunctorily—as is evident from Shri T. T. Krishnamachari's lament.

The intention of Shri Dharampal in bringing to light the buried bones of past discussions is not to indulge in sterile historical research. Since the report of the Balwantray Mehta Committee and inauguration of what is now known as *panchayat raj* in Rajasthan in 1959, there has been a quickening of interest in the subject of decentralised economic and political democracy. It is to help in this process of re-thinking that this material is being published. It should be found refreshing to be reminded of sentiments and ideals expressed when the glow of a unique revolution still lighted the minds of the people and their leaders.

I should like, as a sort of a footnote (this is not the appropriate place for elaboration) to the old debate, to emphasise that the question involved is not only that of decentralisation. As I look at it, there are two entirely different concepts of society involved here. Even though not clearly expressed, this is implicit throughout Gandhiji's discussion on the subject. One concept is that put forward by Dr Ambedkar, and accepted as the basis of the Constitution: namely, the atomised and inorganic view of society. It is this view that governs political theory and practice in the West today. The most important reason for this is that Western society itself has become, as a result of a certain form of industrialisation and economic order, an atomised mass society. Political theory and practice naturally reflect this state of affairs, and political democracy is reduced to the counting of heads. It is further natural in these circumstances for political parties—built around competing power-groups—to be formed, leading to the establishment, not of government by people, but of government by party: in other words, by one or another power-group.

The other is the organic or communitarian view, that puts man in his natural milieu as a responsible member of a responsible community. This view treats of man not as a particle of sand in an inorganic heap, but as a living cell in a larger organic entity. It is natural that in this view the emphasis should be laid more on 'responsibility' than on 'right', just as in the inorganic view it is natural that it should be the opposite. When the individual lives in community with others, his rights flow from his responsibilities. It cannot be otherwise. That is why, in Gandhiji's sociological thought, the emphasis is always laid upon responsibility.

Now, a community in order to be real, that is, in order that it might be infused with the sense of community, must emphasise in its internal life such ethical values as adjustment, harmony and cooperation. Without these, there can be no community. The community can never be at war with itself: one part of it fighting the other (albeit democratically), and the majority ruling over the minority. Such kind of political battle is possible only in the mass society, where there is no community. This does not mean that within the community there can be no difference of opinion or of interests. But they must be adjusted together and harmonised so that the community and its individual members live and grow and evolve materially and spiritually. The job is to discover the political and economic institutions as well as the processes that can accomplish this task. It is time the protagonists of *panchayat raj* looked beyond the hackneyed phrases of political and economic decentralisation, fondly hoping that parliamentary democracy *plus* a large measure of local self-government would perform the trick and usher in people's democracy of their dreams.

It is necessary to point out that, according to the communitarian view, the community does not begin and end with the primary community: the village or the small township. Gandhiji's concept of concentric circles of community might be recalled in this connection, the outermost circle, which Gandhiji termed 'oceanic', embracing the whole world community of human beings; just as within the primary community adjustment, conciliation, harmony and cooperation are the aim, so the relations between different 'circles' of community have to be adjusted and harmonised in the interest of all concerned. This objective, as well as the means to achieve it, should be expressed in the polity of society. The representative political institutions, for example, should be so constituted as to represent not individuals, but their communities; beginning with the primary community and going outward to embrace wider and wider circles. In this system, the community thus takes the place of the party—the difference within and between communities being adjusted and harmonised at every level.

In the sphere of world relations, this concept of adjustment of the interests of national communities, even of the USSR and the USA, is being considered as a practical proposition. But it is remarkable that within the national community, this is not yet thought to be possible; or to be possible only on the basis of the majority in *numbers* imposing its will democratically upon the minority. In the United Nations, it is inconceivable that the majority of the nations should seek to impose their will over the minority. It would lead immediately to the break-up of the world organisation. For the good of each, it is imperative that the nations should discover ways to adjust and harmonise their interests. It is true that this imperative is accepted not because of moral conviction, but because of destruction from the new weapons of war. Nonetheless, the mental acceptance of the imperative is real. There is no equally clear imperative at work within the national community. In the West, where the community has almost wholly ceased to exist, the frustrations of the mass society resulting in a new moral consciousness will perhaps in time replace the present political system—based on the struggle for power—with a system based on harmony and cooperation.

In India, and perhaps in all the developing countries of Asia and Africa, however, the situation is more favourable. The small primary community, the village and the township, still exist. True, there is little of true community found at present in the village; but at least, the physical shell of community is there. The task is to put substance into the shell and make the villages and townships real communities. But if a political system is introduced into the village that further disrupts the already largely disrupted community, the result would be not development of feeling of community and harmony, but just the opposite. The polity of *panchayat raj*, or communitarian polity, must not copy the polity of the mass society. It is for this reason that Gandhiji rejected parliamentary democracy, which he termed the tyranny of the majority and laid stress on *gram raj* (which logically embraces *nagar raj*) as the basis of *swaraj* and also why he commended the process of decision-making through a process of consensus-making and emphasised the role of a detached moral force based on popular sanction and derived from selfless service as a unitive and corrective force in the democracy of his conception.

There is a last point which I should like briefly to touch upon. It might be urged, as is actually done, that in the organic or communitarian society, the individuality of man would tend to be submerged in the community; and he might not be able to enjoy that freedom which is essential for the dignity and development of the human personality. Contrarily, it might be urged that it is only in the society that treats each person as a unit in the political system and bases the political structure on individual votes, that there is the highest possible freedom enjoyed by the individual. Nothing could be farther from the truth. It is exactly in the mass society, which falsely proclaims the sovereignty of the individual, that the individual is alienated from himself and becomes a nameless digit which the political and economic masters manipulate for power and profit and glory. The individual in the modern society is a victim of social and economic forces over which he has little control. On the other hand, it is life in the community, in which the sense of community has developed, that the individual is a distinct personality living with other personalities and has the possibility to develop to the highest as a human being. The relationship between the individual and the community, as Gandhiji has expressed it, is the readiness of the individual to die for the community and of the community to die for the individual. To the extent to which this attitude is developed on both sides, to that extent there is individual and social development. The task is to discover the best social, political, economic, cultural and educational processes and institutions that would achieve that objective.

These are some of the implications of *panchayat raj*, as I see them. I hope this publication will stimulate thought on these questions.

Jayaprakash Narayan

Introduction

> I must confess that I have not been able to follow the proceedings of the Constituent Assembly...(the correspondent) says that there is no mention or direction about village panchayats and decentralisation in the foreshadowed Constitution. It is certainly an omission calling for immediate attention if our independence is to reflect the people's voice. The greater the power of the panchayats, the better for the people...
>
> *—Gandhiji in* Harijan*, 21 December 1947*

The resolution on the aims and objects of free India's Constitution was introduced in the Constituent Assembly on 13 December 1946. This was a period of turmoil and uncertainty. The Muslim League, the second major party in India, had boycotted the Assembly, and most of the representatives of the then Indian States had yet to be brought in. Yet, Gandhiji was then very much with us. It is not surprising, therefore, that no specific mention was made in this resolution itself regarding the place of India's villages in an Independent India, their role in its government and the meaning of *swaraj* to the Indian village. Whatever needed to be said about the subject was presumed to be covered by similar references like 'the passion that lies in the hearts of the Indian people today' and that there was 'no doubt that his (Gandhiji's) spirit hovers over this place (Constituent Assembly hall) and blesses our undertaking.' During the course of his speech while moving the resolution, the mover (Shri Jawahar Lal Nehru) said:

> Obviously, we are aiming at democracy and nothing less than a democracy. What form of democracy, what shape might it take, is another matter. The democracies of the present day, many of them in Europe and elsewhere, have played a great part in the world's progress. Yet it may be doubtful if those democracies may not have to change their shape somewhat before long if they have to remain completely democratic. We are not going just to copy, I

> hope, a certain democratic procedure or an institution of a so-called democratic country. We may improve upon it. In any event whatever system of government we may establish here must fit in with the temper of our people and be acceptable to them. We stand for democracy. It will be for this House to determine what shape to give to that democracy, the fullest democracy, I hope.

Several speakers who followed in support made brief references to the shape of the polity, the meaning of *swaraj* for every village. This was well brought out by a reference to a then recent statement of Gandhiji where he had said:

> The centre of power is in New Delhi, or in Calcutta and Bombay, in the big cities. I would have it distributed among the seven hundred thousand villages of India...
>
> There will then be voluntary cooperation—not cooperation induced by Nazi methods. Voluntary cooperation will produce real freedom and a new order vastly superior to the new order in Soviet Russia...
>
> Some say there is ruthlessness in Russia, but that is exercised for the lowest and the poorest and is good for that reason. For me, it has very little good in it.

After a lapse of over a month, during which period the Assembly waited to give time to the others to join (which they did not), the resolution on the aims and objects of the Constitution was finally adopted on 22 January 1947. Meanwhile, negotiations about independence were going on. The unity of the country was at stake and everyone who had any say or view was totally taken up with such immediate issues.

The Secretariat of the Constituent Assembly, however, was not idle. With the help of its adviser, Shri B.N. Rau, it went on studying constitution after constitution of countries in Europe, in the Americas and the USSR. A draft was finally placed before the Assembly in August 1947, a few days after independence. At the same time, on 29 August 1947, the Minister of Parliamentary Affairs, moved that ‘a Committee be appointed to scrutinise and to suggest necessary amendments to the draft Constitution of India, prepared in the office of the Assembly on the basis of the decision taken in the Assembly.’ After some modification, the motion was adopted the same day. The members of this Committee were:

1. Shri Alladi Krishnaswamy Ayyar
2. Shri N. Gopalaswami Ayyangar
3. The Honourable Dr B.R. Ambedkar
4. Shri K.M. Munshi.
5. Saiyed Mohd. Saddulla
6. Sir B.L. Mitter
7. Shri D.P. Khaitan

The revised draft, as it emerged from the Scrutiny Committee, was re-introduced in the Constituent Assembly on 4 November, 1948. During the intervening 15 months since the draft was entrusted to the Scrutiny Committee, the revised draft was published and circulated and had aroused much controversy and debate. One of the major issues which then, and subsequently in the Constituent Assembly, aroused considerable heat and anger was the place of the villages in the polity which was envisaged. In April, 1948 itself, the issue was referred by the President of the Constituent Assembly to the Constitutional Adviser for his views. In a note submitted by him he said:

> Even if the panchayat plan is to be adopted, its details will have to be carefully worked out for each province and for each Indian State with suitable modification for towns. Apart from other difficulties, this will take time and rather than delay the passing of the Constitution further, it would seem better to relegate these details to auxiliary legislation to be enacted after the Constitution has been passed.

It is revealing how the Scrutiny Committee had done its job of preparing a Constitution for free India. The following was stated, on behalf of the Scrutiny Committee, by Shri T.T. Krishnamachari, during the general debate at the start of the second reading on 5 November 1948:

> At the same time, I do realise that that amount of attention that was necessary for the purpose of drafting a Constitution so important to us at this moment has not been given to it by the Drafting Committee. The House is perhaps aware that of the seven members nominated by you, one had resigned from the House and was replaced. One died and was not replaced. One was away in America and his place was not filled up and another person was engaged in State affairs and there was a void to that extent. One or two people were far away from Delhi and perhaps reasons of health did not permit them to attend. So it happened ultimately that the burden of drafting this Constitution fell

> on Dr Ambedkar and I have no doubt that we are grateful to him for having achieved this task in a manner which is undoubtedly commendable. But my point really is that the attention that was due to a matter like this has not been given to it by the Committee as a whole. Some time in April the Secretariat of the Constituent Assembly had intimated me and others besides myself that you had decided that the Union Power Committee, the Union Constitution Committee and the Provincial Constitution Committee, at any rate the members thereof, and a few other selected people should meet and discuss the various amendments that had been suggested by the members of the House and also by the general public. A meeting was held for two days in April last and I believe a certain amount of good work was done and I see that Dr Ambedkar has chosen to accept certain recommendations of the Committee, but nothing was heard about this Committee thereafter. I understand that the Drafting Committee—at any rate Dr Ambedkar and Mr Madhava Rau—met thereafter and scrutinised the amendments and they have made certain suggestions, but technically perhaps this was not a Drafting Committee. Though I would not question your ruling on this matter, one would concede that the moment a Committee had reported that Committee became *functus officio*, and I do not remember your having reconstituted the Drafting Committee. The point why I mention all these is that certain aspects of our Constitution have not had the amount of expert attention that was necessary, the amount of attention that could have been provided to it if a person like Mr Gopalaswamy Ayyangar or Mr Munshi or certain other persons had attended the meetings all through.

Member after member arose to express their sorrow, anger and disappointment. This was particularly provoked by a reference to village India by Dr B.R. Ambedkar, who piloted the draft and was also Chairman of the Scrutiny Committee, in his opening statement. This concern had some effect. On 22 November 1948, a new clause was inserted in the Constitution and adopted with no dissent. This was:

> *That after Article 31, the following new Article be added:*
>
> *'31-A. The State shall take steps to organise village Panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.'*

This is how the present article 40 which forms part of the Directive Principles of State Policy was incorporated in free India's Constitution.

That this much only was possible under those circumstances was realised and sorrowfully agreed. How much sorrow, disappointment and unhappiness yet remained could still be felt at the third reading of the Constitution between 17-26 November 1949. Not that all agreed. The views of some members were more or less akin to those of Dr Ambedkar. But the overwhelming opinion of the House was for recognising the village and giving it a place in Indian polity.

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Believing that all this needs to be noted, digested and acted upon, AVARD has tried to make some exploration in this past. Though all this adds up to some 25,000 words, feeling that we need to share it with others we have brought together all the relevant material (on panchayat raj) from the proceedings of the Constituent Assembly. This includes:

1. Excerpts from the Discussion on the Resolution on Aims and Objects of the Constitution, 13 Dec. 1946—22 Jan. 1947.
2. The appointment of the Draft Constitution Scrutiny Committee, 29 Aug. 1947.
3. Excerpts from the General Debate on the Second Reading of the Draft Constitution, 4-9 November 1948.
4. Full text of the Debate on the incorporation of Article 40 in the Constitution, 22 November 1948.
5. Excerpts from the Third Reading, 17-26 November 1949.
6. A note by the Constitutional Advisor on the place of Panchayats in India's Constitution.
7. The Resolution on Aims and Objects.

The material has been arranged in chronological sequence and we have tried not to make any omission of any reference, favourable or hostile, to the role of the village in Indian polity. We would try to publish any other material from this chapter of our history which we come by, subsequently.

• • •

This journey into the past may still serve us help explore the future. The singular ambition of the greatest man of our generation 'to wipe every tear from every eye' is far from being fulfilled. Perhaps only a Gandhi could have achieved that. It was, and still is, the resolve of the Constituent Assembly '...as long as there are tears and suffering, so long our work will not be over.' If during the last fourteen years our attention has been diverted, and our energies spent on problems arising out of the immediate happenings of the year of independence and its immediate repercussions, we can still plan to restart our journey by re-ordering the basic structure of Indian polity. We still have a chance to help the people of India to build that 'India of our dreams', which was left rather unspelt on 15 August 1947—perhaps needing no elaboration in the days of Gandhiji—by the President of the Constituent Assembly, Dr Rajendra Prasad, an India which alone can bring the impact of democratic living to all its citizens in its fullness.

It is the permeation of *swaraj* at all levels—not only in Delhi and the State capitals—which can lead to worthwhile development. More than 'development', such a feeling of *swaraj* would help in the much greater task—on which development itself depends—of the integration of Indian society, the lifting up of the depression which seems to have settled over the country and thus lead to purposive action and a feeling of well-being.

Dharampal

I

FROM THE DISCUSSION ON THE RESOLUTION ON AIMS AND OBJECTS

Dec. 13, 1946—Jan. 22, 1947

HONOURABLE, PANDIT JAWAHAR LAL NEHRU
(U.P.: GENERAL)

Obviously we are aiming at democracy and nothing less than a democracy. What form of democracy, what shape it might take is another matter. The democracies of the present day, many of them in Europe and elsewhere, have played a great part in the world's progress. Yet it may be doubtful if those democracies may not have to change their shape somewhat before long if they have to remain completely democratic. We are not going just to copy, I hope, a certain democratic procedure or an institution of a so-called democratic country. We may improve upon it. In any event whatever system of Government we may establish here must fit in with the temper of our people and be acceptable to them. We stand for democracy. It will be for this House to determine what shape to give to that democracy, the fullest democracy, I hope...

SHRI M.R. MASANI (BOMBAY: GENERAL)

...I would like to draw the attention of this House to what I might call, the social or long-term aspect of this Resolution and to try to understand what kind of society or State, what way of life this Resolution offers to the people of this country. I feel, that immediate disputes aside, that is the part of the Resolution at which the common people of the country will look with the closest attention.

...Our national life has many different trends in it but almost unanimously, we all stand for the freedom of the individual and for a democratic State. And to show how widely different schools of thought in our midst can agree with almost one voice on this desire to distribute power to our common people, to distribute political and economic power so widely that no one man or group of people can exploit or dominate the rest, I will cite to you first the testimony of one who is not present amongst us, one who was referred to by the Mover as the Father of our Nation. I refer to Mahatma Gandhi (cheers). These are his words: as quoted in ‘A week with Gandhi’ by Louis Fischer:

> The centre of power now is in New Delhi, or in Calcutta and Bombay, in the big cities. I would have it distributed among the seven hundred thousand villages of India...
>
> There will then be voluntary cooperation between these seven hundred thousand units, voluntary cooperation—not cooperation induced by Nazi methods. Voluntary cooperation will produce real freedom and a new order vastly superior to the new order in Soviet Russia...
>
> Some say there is ruthlessness in Russia, but that it is exercised for the lowest and the poorest and is good for that reason. For me, it has very little good in it.

And as if to find an echo of that in a thinker of a very different school, I shall now cite a sentence or two from a recent picture of Socialism drawn by the leader of the Indian Socialist Party, Jayaprakash Narayan. I regret, that he has not joined us in our labours here, but this is what he says and it sounds almost like an echo of Gandhiji’s thought:

> The State under Socialism threatens, as in Russia, far from withering away, to become an all-powerful tyrant maintaining a strangle-hold over the entire life of the citizen. This leads to totalitarianism of the type we witness in Russia today. By dispersing the ownership and management of industry and by developing the village into a democratic village republic, we break this strangle-hold to a very large extent and attenuate the danger of totalitarianism.
>
> Thus my picture of a socialist India is the picture of an economic and political democracy. In this democracy, men will neither be slaves to capitalism nor to a party or the State. Man will be free.

...The central problem of our times is whether this State is to own the people or the people are to own the State. Where the State belongs to the people, the State is a mere instrument subordinate to the people and it serves the people. It only takes away the liberty of the people to the extent that the people really desire. Where the State owns the people, the people are mere robots in a big machine pushed about here and there by the whims of an all-powerful dictator or an all-powerful party. It is because I believe that the resolution points the direction to a Constitution where the people will be in power, where the individual will occupy the centre of the stage and the development of the individual personality will be the aim of our social good that I support this part of the Resolution, this aspect of it...

SHRI N.V. GADGIL (BOMBAY: GENERAL)

If matters today appear somewhat not very clear, I am sure, that when these principles are incorporated in the sections of the Constitution, these matters will be made perfectly clear.

...It will be a Constitution which will evoke the necessary loyalty from every citizen whom it is to govern. For, no Constitution can evoke loyalty, no Constitution can evoke the necessary sentiment unless it offers every citizen sufficient inspiration to defend it, if it comes to it, by laying down his own life...

PROF N.G. RANGA (MADRAS: GENERAL)

Lastly I wish to appeal to this House to see to it that the necessary provisions are made in the Constitution proper in order to enable our people to enjoy the various rights indicated in this Resolution. Without such provisions this Resolution will have become useless. It will only be a sort of pious hope and nothing more...

HONOURABLE PANDIT JAWAHAR LAL NEHRU
(U.P.: GENERAL)
(Replying to the debate said)

...We shall frame the Constitution and I hope it will be a good Constitution, but does anyone in this House imagine that, when a free India emerges, it will be bound down by anything that even this House might lay down for it? A free India will see the bursting forth of the energy of a mighty nation. What it will do and what it will not, I do not know, but I do know that it will not consent to be bound down by anything. Some people imagine, that what we do now, may not be touched for 10 years or 20 years, if we do not do it today, we will not be able to do it later. That seems to me a complete misapprehension. I am not placing before the House what I want done and what I do not want done, but I should like the House to consider that we are on the eve of revolutionary changes, revolutionary in every sense of the word because when the spirit of a nation breaks its bounds, it functions in peculiar ways and it should function in strange ways. It may be that the Constitution, this House may frame, may not satisfy that free India. This House cannot bind down the next generation, or the people who will duly succeed us in this task.

Therefore, let us not trouble ourselves too much about the petty details of what we do, those details will not survive for long, if they are achieved in conflict. What we achieve in unanimity, what we achieve by cooperation is likely to survive. What we gain here and there by conflict and by overbearing manners and by threats will not survive long...

II

APPOINTMENT OF THE DRAFT CONSTITUTION SCRUTINY COMMITTEE

August 29, 1947

This Assembly resolves that a Committee consisting of:

(1) Shri Alladi Krishnaswamy Ayyar,
(2) Shri N. Gopalaswami Ayyangar,
(3) The Honourable Dr B.R. Ambedkar,
(4) Shri K.M. Munshi,
(5) Saiyed Mohd. Saadulla,
(6) Sir B.L. Mitter,
(7) Shri D.P. Khaitan,

be appointed to scrutinise the draft of the text of the Constitution of India prepared by the Constitutional Adviser giving effect to the decisions taken already in the Assembly and including all matters which are ancillary thereto or which have to be provided in such a Constitution, and to submit to the Assembly for consideration the text of the draft Constitution as revised by the Committee.

III

FROM THE GENERAL DEBATE ON THE SECOND READING OF THE DRAFT CONSTITUTION

November 4-9, 1948

DR B.R. AMBEDKAR (BOMBAY: GENERAL)

...Another criticism against the Draft Constitution is that no part of it represents the ancient polity of India. It is said that the new Constitution should have been drafted on the entire ancient Hindu model of a State and that instead of incorporating Western theories the new Constitution should have been raised and built upon village panchayats and District panchayats. There are others who have taken a more extreme view. They do not want any Central or Provincial Governments. They just want India to contain so many village Governments. The love of the intellectual Indian for the village community is of course infinite if not pathetic. It is largely due to the fulsome praise bestowed upon it by Metcalfe who described them as little republics having nearly everything that they want within themselves, and almost independent of any foreign relations. The existence of these village communities each one forming a separate little State in itself has according to Metcalfe contributed more than any other cause to the preservation of the people of India, through all the revolutions and changes which they have suffered, and is in a high degree conducive to their happiness and to the enjoyment of a great portion of the freedom and independence. No doubt the village communities have lasted where nothing else lasts. But those who take pride in the village communities do not care to consider what little part they have played in the affairs and the destiny of the country; and why? Their part in the destiny of the country has been well described by Metcalfe himself who says:

> Dynasty after dynasty tumbles down. Revolution succeeds to revolution. Hindoo, Pathan, Mogul, Maharatha, Sikh, English are all masters in turn but the village communities remain the same. In times of trouble they arm and fortify

> themselves. A hostile army passes through the country. The village communities collect their cattle within their walls, and let the enemy pass unprovoked.

Such is the part the village communities have played in the history of their country. Knowing this, what pride can one feel in them? That they have survived through all vicissitudes may be a fact. But mere survival has no value. The question is on what plane they have survived. Surely on a low, on a selfish level. I hold that these village republics have been the ruination of India. I am therefore surprised that those who condemn provincialism and communalism should come forward as champions of the village. What is the village but a sink of localism, a den of ignorance, narrow-mindedness and communalism? I am glad that the Draft Constitution has discarded the village and adopted the individual as its unit.

SHRI DAMODAR SWARUP SETH (U.P. GENERAL)

...Besides, we have seven lakh villages in our country and the village is its smallest unit. Thanks to Mahatma Gandhi, our struggle of freedom reached the villages and it was because of the villages and because of their might that India became free.

I want to ask whether there is any mention of villages and any place for them in the structure of this great Constitution. No, nowhere. The Constitution of a free country should be based on 'local self-government'. We see nothing of local self-government anywhere in this Constitution. This Constitution as a whole, instead of being evolved from our life and reared from the bottom upwards is being imported from outside and built from above downwards. A Constitution which is not based on units and in the making of which they have no voice, in which there is not even a mention of thousands and lakhs of villages of India and in framing which they have had no hand—well you can give such a Constitution to the country but I very much doubt whether you would be able to keep it for long.

Our Indian Republic should have been a Union—a Union of small autonomous republics. All those autonomous republics by joining together would have formed the bigger Republic of India. Had there been such autonomous republics, neither the question of linguistic provinces nor of communal majorities or minorities or of backward classes would have arisen. The autonomous Units of the Union could have joined the unions of their choice according to their culture. The Union that would have been formed in our country in this way, would not have required so much emphasis on centralisation as our learned Doctor Ambedkar has laid. Centralisation is a good thing and is useful at times but we forget that all through his life Mahatma Gandhi emphasised the fact that too much centralisation of power makes that power totalitarian and takes it towards fascist ideals. The only method of safeguarding against totalitarianism and fascism is that power should be decentralised to the greatest extent. We would have thus brought about such a centralisation of power through welding of hearts as could not be matched anywhere in the world.

Today after India has attained freedom it is not necessary for me to tell you that the world is looking up to India. It expects something new from India. At such a time as the present one it was necessary that we should have placed before the world a Draft Constitution, a Constitution which could have been taken as an ideal. Instead we have copied the constitution of other countries and incorporated some of their parts and in this way prepared a Constitution. As I have said, from the structure of the Constitution it appears that it stands on its head and not on its legs.

Thousands and lakhs of villages of India neither had any hand nor any voice in its framing. I have no hesitation in saying that if lakhs of villages of India had been given their share on the basis of adult franchise in drafting this Constitution its shape would have been altogether different. What a havoc is poverty causing in our country! What hunger and nakedness are they not suffering from! Was it not then necessary that the right to work and right to employment were included in the Fundamental Rights declared by this Constitution and the people of this land were freed from the worry about their daily food and clothing?

What I mean by all this is that if the thousands of villages of the country, the poor classes and the labourers of India had any hand in framing this Constitution, it would have been quite different from what it is today.

PANDIT BALKRISHNA SHARMA (U.P. GENERAL)

...He (the previous speaker) wants to know what position is held by villagers, labourers, farmers, and local self-government in this Constitution. I would like to submit humbly that if he will take the trouble of studying the whole of the Constitution carefully, he would come to know that even today in the making of this Constitution, we are not ignoring that sacred inspiration of Mahatma Gandhi which led him to give us a message that India does not consist of cities but of seven lakhs of villages...

PROF SHIBBAN LAL SAKSENA (U.P. GENERAL)

...He (Shri Damodar Swarup Seth) has said that this Constitution does not give any voice to the villages...Mahatma Gandhi's own Constitution, of which an outline was given by Shri S.N. Aggarwal, was also based on village republics or village panchayats, and I think we shall have to discuss this point carefully when we come to that aspect of the Constitution. I was pained to hear from Dr Ambedkar that he rather despised the system in which villages had a paramount voice. I think we will have to amend that portion properly...He has said that there is no provision in this Constitution for Local Self-Government in units. It is an important thing which must be included in the Constitution and at present there is this omission in the present Constitution.

SHRI H.V. KAMATH (C.P. & BERAR: GENERAL)

...The other day Shrimati Vijayalakshmi while addressing the United Nations General Assembly in Paris observed with pride that we in India have borrowed from France their slogan of liberty, equality and fraternity; we have taken this from England and that from America, but she did not say what we had borrowed from our own past, from our political and historic past, from our long and chequered history of which we are so proud.

On one thing I join issue with Dr Ambedkar. He was pleased to refer to the villages—I am quoting from a press report in the absence of the official copy—as 'sinks of localism and dens of ignorance, narrow mindedness and communalism'; and he also laid at the door of a certain Metcalfe our 'pathetic faith' in village communities. I may say that is not owing to Metcalfe but owing to a far greater man who has liberated us in recent times, our Master and the Father of our nation, that this love of ours for the villages has grown, our faith in the village republics and our rural communities has grown and we have cherished it with all our heart. It is due to Mahatma Gandhi...that we have come to love our village folk. With all deference to Dr Ambedkar, I differ from him in this regard. His attitude yesterday was typical of the urban highbrow; and if that is going to be our attitude towards the village folk, I can only say, 'God save us.' If we do not cultivate sympathy and love and affection for our village and rural folk I do not see how we can uplift our country. Mahatma Gandhi taught us in almost the last *mantra* that he gave in the best days of his life to strive for panchayat raj. If Dr Ambedkar cannot see his way to accept this, I do not see what remedy or panacea he has got for uplifting our villages. In my own province of C.P. and Berar we have recently launched upon a scheme of Janapadas, of local self-government and decentralisation; and that is entirely in consonance with the teachings of our Master. I hope that scheme will come to fruition and be an example to the rest of the country. It was with considerable pain that I heard Dr Ambedkar refer to our villages in that fashion, with dislike, if not with contempt. Perhaps the fault lies with the composition of the Drafting Committee, among the members of which no one, with the sole exception of Sriyut Munshi, has taken any active part in the struggle for the country's freedom. None of them is therefore capable of entering into the spirit of our struggle, the spirit that animated us; they cannot comprehend with their hearts—I am not talking of the head it is comparatively easy to understand with the head—the turmoiled birth of our nation after years of travail and tribulation. That is why the tone of Dr Ambedkar's speech yesterday with regard to our poorest, the lowliest and the lost was what it was. I am sorry he relied on Metcalfe only. Other historians and research scholars have also given us precious information in this regard. I do not know if he has read a book called 'Indian Polity' by Dr Jayaswal; I do not know if he has read another book by a greater man, 'The Spirit and Form of Indian Polity' by Sri Aurobindo. From these books we learn, how our polity in ancient times was securely built on village communities which were autonomous and self-contained; and that is why our civilisation has survived through all these ages. If we lost sight of the strength of our polity we lost sight of everything. I will read to the House a brief description of what our polity was and what its strength was:

> At the height of its evolution and in the great days of Indian civilisation we find an admirable political system, efficient in the highest degree and very perfectly combining village and urban self-government with stability and order. The State carried on its work—administrative, judicial, financial and protective—without destroying or encroaching on the rights and free activities of the people and its constituent bodies in the same department. The royal courts in capital and country were the supreme judicial

> authority co-ordinating the administration of justice throughout the kingdom.

That is so far as village republics are concerned. I believe the day is not far distant when not merely India but the whole world, if it wants peace and security and prosperity and happiness, will have to decentralise and establish village republics and town republics, and on the basis of this they will have to build their State; otherwise the world is in for hard times...

Now what is a State for? The utility of a State has to be judged from its effect on the common man's welfare. The ultimate conflict that has to be resolved is this: whether the individual is for the State or the State for the individual. Mahatma Gandhi tried in his life time to strike a happy balance, to reconcile this *dwandwa* (   ) and arrived at the conception of the Panchayat Raj. I hope that we in India will go forward and try to make the State exist for the individual rather than the individual for the State. This is what we must aim at and that is what we must bring about in our own country.

...While supporting the motion I would like to make it clear to you that I do not have at present the enthusiasm with which such a motion should be supported.

SHRI LOKNATH MISRA (ORISSA: GENERAL)

...I should say that the strength of the nation and the unity of her people do not depend upon the State power. It depends upon the realisation of the inner unity and the human spirit that makes all men brothers.

...I would have taken some more time to X-ray the speech of Dr Ambedkar. I bow down to his knowledge. I bow down to his clarity of speech. I bow down to his courage. But I am surprised to see that so learned a man, so great a son of India knows so little of India. He is undoubtedly the very soul of the Draft Constitution and he has given in his draft something which is absolutely un-Indian. By un-Indian I mean that however much he may repudiate, it is absolutely a slavish imitation of—nay, much more, a slavish surrender to the West.

KAZI SYED KARIMUDDIN (C.P. & BERAR: MUSLIM)

...The fourth part of the Constitution is the directive fundamentals which have been given...What is stated in Part IV is vague. What we want today is not mere talk of economic or philosophical ideals. We want an economic pattern of the country in which the lot of the poor masses can be improved.

DR P.S. DESHMUKH (C.P. & BERAR: GENERAL)

...After all this is a country of agriculturists. The peasants and the labourers should have a large share and the most dominating in the Government. They should have been made to feel that they are the real masters of this biggest nation on earth. I do not share the view that the past of our ancient civilisation is not worth utilising for the future building up of the Indian nation. That is a view from which I differ.

SHRI ARUN CHANDRA GUHA (WEST BENGAL: GENERAL)

...In the whole Draft Constitution we see no trace of the Congress outlook, no trace of Gandhian social and political outlook. I feel the whole Constitution lacks in Congress ideal and Congress ideology particularly. When we are going to frame a constitution, it is not only a political structure that we are going to frame; it is not only an administrative machinery that we are going to set up; it is a machinery for the social and economic future of the nation.

Then, Dr Ambedkar has passed some remarks about the village units. We have been in the Congress for years. We have been taught to think of the village panchayats as the future basis of administrative machinery. The Gandhian and the Congress outlook has been that the future constitution of India would be a pyramid structure and its basis would be the village panchayats. According to Dr Ambedkar, the villages have been the ruination of India, the villages have been the den of ignorance. If that has been the case now, that is due to us who have been living in the towns, who have been shining under the foreign rule. Our villages have been starved; our villages have been strangled deliberately by the foreign Governments; and the towns-people have played a willing tool in this ignoble task. Resuscitating of the villages, I think, should be the first task of the future free India. I have told you, that we have been taught according to the Gandhian outlook and the Congress outlook that the future Constitution of India would be a pyramidal structure based on the village panchayats.

I admit we require a strong Centre; but that does not mean that its limbs should be weak. We cannot have a strong Centre without strong limbs. If we can build the whole structure on the village panchayats, on the willing cooperation of the people, then I feel the Centre would automatically become strong. I yet request the House that it may incorporate some clauses so that village panchayats may be allowed to play some effective part in the future administration of the country.

Dr Ambedkar has posed before us a question that they have tried to put the constitution on the basis of provinces, on the basis of some political units, on the basis of the individual as the basic unit. The village should be the real basis of the machinery. The individual is the soul of the whole constitution; but the village should be made the basis of the machinery of its administration.

SHRI T. PRAKASAM (MADRAS: GENERAL)

...Mr T. T. Krishnamachari when he was speaking explained the handicap under which the Honourable Dr Ambedkar had been labouring on account of as many as five or six members of the Committee having dropped out and their places not having been filled up. I have been attending this session regularly with the hope and expectation that the Constitution that would be evolved would be one that would meet with the wishes and desires of those who had fought the battle of freedom for thirty years, and who had succeeded in securing freedom under the leadership of the departed Mahatma Gandhi. I was hoping, having seen the Preamble that everything would follow in regular course and bring out a Constitution that will give food and cloth to the millions of our people and also give education and protection to all the people of the land. But to the utter disappointment of myself and some of us who think with me, this Draft Constitution has drifted from point to point until at last it has become very difficult for us to understand where we are, where the country is, where the people are, what is it that they are going to derive out of this Constitution when it is put on the statute book. Now, when a Constitution is drafted, generally what is expected of those who are in charge of drafting the Constitution, those who are in charge of approving the Constitution as members of the Constituent Assembly is, what are the conditions in the country, what is the situation in the country, are we doing all that is necessary to get over the troubles in the country? With that object, I have been waiting to learn from all Members who have been devoting their time in explaining the real position with regard to this Constitution. I feel thankful to some of those members who have not forgotten the way in which the battle of freedom had been fought in this country and how freedom had been secured. So far as the drafting of this Constitution is concerned, with all respect to Dr Ambedkar, I must say that he has not been able to put himself in the position of those who had been fighting for the freedom of this country for thirty long years. In one stroke he condemned the village panchayat system. He has referred to the remarks of one great man of those old days of the British, Mr Metcalfe, and the description given by him that the village panchayats existed and continued, whatever may have been happening with regard to the Government at the top; whoever may have come and whoever may have gone, they did not concern themselves. It is not a matter which should have been treated by Dr Ambedkar in that manner. That was a condition to which we had been reduced, after the village panchayats had been exhausted on account of the oppression of the various foreign rulers who had come over to this country. Still in spite of all that had been done for their suppression, they had survived. That is what Metcalfe wanted to explain to the world and to us who had been ignoring it. Therefore village panchayat is not to be condemned on that basis. I do not advocate for one moment today that village panchayats should be such as described by Metcalfe under those circumstances. Village panchayat should be one which is up-to-date, which gives real power to rule and to get money and expand it, in the hands of the villagers. I would like to know what is this Government that is being constituted under this Draft Constitution. For whose benefit is this intended? Is it for the benefit of a few people or is it for the benefit of the millions of people who pay taxes? Whether they have power or not they pay the taxes under the vicious system that had been established in this country and under which we had been groaning for a hundred and fifty years and we tried our best to get rid of that system...It is only right and proper that this Constituent Assembly which has been sent by the people of this country should take particular care to see that this Draft Constitution of Dr Ambedkar is so amended that it would really become a constitution for the benefit of the masses and the millions of people for whose sake the battles have been fought by that great *friend* who has gone away leaving us here to get along with our work.

SHRI K. SANTHANAM (MADRAS: GENERAL)

...I am sorry that Dr Ambedkar went out of his way to speak about village panchayats and say that they did not provide the proper background for a modern Constitution. To some extent I agree but at the same time I don't agree with his condemnation of the village panchayats and his statement that they were responsible for all national disasters. I think that in spite of revolutions and changes they have preserved Indian life and but for them India will be a chaos. I wish that some statutory provision had been inserted regarding village autonomy within proper limits. Of course there are difficulties because there are villages which are very small and there are big villages and many of them have to be grouped for establishing panchayats, but I do think that at some stage or other when all the provinces have set up panchayats, their existence may have to be recognised in the Constitution for in the long run local autonomy for each village must constitute the basic framework for the future freedom of this country.

SHRI R.K. SIDHWA (C.P. & BERAR: GENERAL)

...This is a Constitution prepared for democracy in this country and Dr Ambedkar has negatived the very idea of democracy by ignoring the local authorities and villages. Local authorities are the pivots of the social and economic life of the country and if there is no place for local authorities in this Constitution, let me tell you that the Constitution is not worth considering. Local authorities today are in a very peculiarly miserable condition. The provinces which complain that the Centre has been made too strong and that certain powers had been taken away from them have themselves in the intoxication of power taken away the powers of the local bodies, and, in the name of maladministration, today more than 50 per cent of the local bodies had been superceded by Provincial Governments. This was the attitude in the previous British regime, and our Provincial Governments are merely following that practice instead of revolutionising the entire system of local bodies. Unless a direction is given in the Constitution through Provincial Governments to make these bodies very useful organisations for the uplift of villagers...this document is not worth presentation in the name of democracy. The finances of the local bodies are in a miserable condition. The Provincial Governments would not like to give them the electricity taxes, the entertainment taxes, etc., which are the only sources of revenue for these local bodies in western countries. Here in this country all these taxes are grabbed by the provinces. This has left the local bodies mere skeletons today. If this is the tendency, how can you expect the local bodies and villages to prosper? The Governor General in his recent speeches and also one Deputy Prime Minister in his speech in Bombay stated that every villager must be made to realise that he or she has got a share in the administration of the country. I fail to understand how this can be done if you ignore the villagers, the largest portion of the population.

PANDIT BALKRISHNA SHARMA (U.P. GENERAL)

...There is no doubt that the Constitution does not contain any clause about village panchayats. A good deal of criticism has been hurled at it for that reason, but may I point out that the Constitution in no way rules out the development of the village panchayats? The Constitution does not put any obstruction whatsoever in the path of the development of those units of local self-government which will enjoy power for managing their own affairs, and therefore that criticism also seems to me to be without any foundation.

PANDIT THAKUR DASS BHARGAVA (EAST PUNJAB: GENERAL)

...The real soul of India is not represented by this Constitution and autonomy of the villages is not fully delineated here and this camera (the Draft Constitution) cannot give a true picture of what many people would like India to be. The Drafting Committee had not the mind of Gandhiji, had not the mind of those who think that India's teeming millions should be reflected through this camera.

...We have heard too much about the village panchayats. How these village panchayats will work I do not know; we have got a conception and that conception we try to put into practice.

PROF SHIBBAN LAL SAKSENA (U.P. GENERAL)

...Dr Ambedkar has criticised the system of village panchayats which prevailed in India and which was envisaged by our elders to be the ideal basis for our Constitution. I was just now reading Mahatma Gandhi's speech in the 1931 Round Table Conference in London; he was speaking about the method of election to the Federal Legislature. There he recommended that the villages should be the electoral units. He in fact gave fundamental importance to the village republics. He said that it was in villages that the real soul of India lived. I was really sorry that Dr Ambedkar should express such views about the village panchayats. I am certain that his views are not the views of any other Member of this House.

...I am certain that a very large majority of the House do not agree with this view of village republics. As one who has done work in villages and has experience of the working of Congress village panchayats for the last twenty-five years, I can say that this picture is purely imaginary. It is an entirely wrong picture. I personally feel that, if we bring to these village panchayats all the light and all the knowledge which the country and the world have gathered they will become the most potent forces for holding the country together and for its progress towards the ideal of *Ram Rajya*...I think that the Constitution should provide for the establishment of village republics.

The Upper House under this Draft Constitution is to be elected indirectly by provincial legislatures. I think it should be elected on a wider franchise and village panchayats should be required to elect the Upper House. The suggested method of electing the Upper House by provincial legislatures is a very wrong method. If village panchayats are allowed to elect the Upper House, we will have a more representative Upper House. I personally feel that unless we give the villages more responsibility, we cannot really solve their problems.

SHRI SARANGDHAR DAS (ORISSA STATES)

...When he says: 'What is the village but a sink of localism and a den of ignorance, narrow-mindedness and communalism?' I am rather surprised that a respected member of this House and also a Minister of the National Government should have such an idea about our villages. I must say here, that with the spread of Western education in our schools and colleges we had lost contact with the villages, and it was our leader, Mahatma Gandhi, who advised the intelligentsia to go back to the villages, and that was some thirty years ago. For the last thirty years we have been going into the villages and making ourselves one with the villagers; and in reply to Dr Ambedkar's accusation, I would say that there is no localism in the villages. There is ignorance—yes, ignorance of the English language and also our various written languages, and that situation is due to the kind of Government we had, a Government that destroyed our educational system. As far as knowledge of nature and wisdom gathered from *Shastras* and *Puranas* are concerned, I would say that there is more wisdom and more knowledge in the villages than in our modern cities.

...Our people living in the cities are far away from the villagers, from their life, and that is why we have become such that we think there is nothing good in the villages. Now this idea is changing; I do not know if it is changing outside the Congress circles, but I am positive that within the Congress circles, the idea of the villages is uppermost in everybody's mind. I shall therefore appeal to Dr Ambedkar to reconsider this matter and to give the villagers their due because the villages in the near future will come into their own as they used to be.

CHAUDHARI RANBIR SINGH (EAST PUNJAB: GENERAL)

...I would not like to go deep into the question of centralisation and decentralisation of power, but I would like to draw the attention of the House to one matter. Mahatma Gandhi, the Father of the Nation, always taught us that whether in the politics or in the economic sphere decentralisation engenders a power which is much greater than other kinds of power. Besides, there are other reasons also for this view. I am a villager, born and bred in a farmer's house. Naturally, I have imbibed its culture. I love it. All the problems connected with it fill my mind. I think that in building the country the villagers should get their due share and villagers should have their influence in every sphere.

BEGUM AIZAZ RASUL (U. P. MUSLIM)

...A lot of criticism has been made about Dr Ambedkar's remark regarding village polity. I entirely agree with him. Modern tendency is towards the right of the citizen as against any corporate body and village panchayats can be very autocratic.

DR MONOMOHAN DAS (WEST BENGAL: GENERAL)

...One very pertinent question has been raised by an eminent member of this House, when he said that the Draft Constitution of India has borrowed many things from the Constitutions of other countries of the world, but it has taken nothing from the indigenous soil, from our cultural heritage, evidently meaning the Village Panchayat System. We, as a sentimental and idealist race have a natural tendency and love for every thing that is old and past. Our Chairman of the Drafting Committee has been criticised by various personages of this House, for not including this Village Panchayat System into the Draft Constitution. They have taken it for granted that this Constitution has been the work of a single man, forgetting that there was a Constitution-making body, the Drafting Committee, always to guide the framing of the Constitution. I think, it is strange that all the members of the Drafting Committee including the Chairman have forgotten to include this Village Panchayat System into our Constitution. The Village Panchayat System has been a blind spot to all of them. I personally think the Drafting Committee has wilfully left it to the provincial legislatures to frame whatever they like about this Village Panchayat System.

In fact, there are provinces in which legislation has already been undertaken in that direction, I mean, the Gram Panchayat Bill of the United Provinces. There is nothing in our Constitution that will take from the provincial legislatures the power to pass an Act in that direction. If our provincial legislatures think that this Village Panchayat System will do immense good to our country, they are quite at liberty to introduce it in their legislatures and pass it accordingly. So I think, the criticisms sometimes amounting to abuse, which have been showered upon the Chairman of the Drafting Committee, are wholly uncalled for.

...I beg to utter a few words of caution to all honourable friends who are so enthusiastic protagonists of the Village Panchayat System. Unless and until our village people are educated, unless and until they become politically conscious, unless they become conscious of their civic rights and responsibilities, and unless they become conscious of their rights and privileges, this Village Panchayat System will do more harm than good. I know that I am inviting serious harm upon myself when I say that the Village Panchayat System has been there and was there for centuries and centuries. How much has it contributed to the welfare of our country, how much has it contributed to our social, political and economic uplift? If this system is introduced before our village people are properly educated, then I think the local influential classes will absorb to themselves all the powers and privileges that will be given by the Panchayat System and they will utilise it for their selfish motives. This system will enable the village zamindars, the village talukdars, the mahajans and the money-lending classes to rob, to exploit the less cultured, the less educated, poorer classes of the villages.

SHRI V.I. MUNISWAMY PILLAI (MADRAS: GENERAL)

...Coming to the economic condition of the villagers, especially the tillers of the soil and agricultural labour, I do not find any provision has been made in the Draft Constitution to consider the village as a unit. Of course, due to exploitation and other things, the villages are in rack and ruin. It is the highest duty of any constitution-making body to see that the village is set right. Due to the hereditary system of appointment of village officers, *maniagars* and *karnams*, they are the people who rule the villages. Having made a Constitution for the upper strata for the management of the provinces of India, if we leave alone the village-reconstruction, I feel that we are doing a wrong thing. It is the wish of Mahatma Gandhi also that the village must be made a self-governing unit. I am sure this August Assembly will reconsider what has been presented to this House and see that we make proper amendments so that the village or a group of villages could come under the category of self-governing institutions. Whether in the District Board or Municipalities, there are no real representatives of the people of the village or the taluk This is not a popular institution as it is now constituted. I feel that the village unit must be taken into account.

SHRIMATI DAKSHAYANI VELAYUDHAN (MADRAS: GENERAL)

...There are two ways of making India a strong unit. One is by the method of centralisation of power and the other is by decentralisation; but centralisation is possible only through parliamentary system which now goes under the safe words 'democratic methods', but in this draft we can't find anything that is democratic and decentralisation is totally absent. It is a great tragedy that in making the constitution of a great country with thirty crores of people, with a great culture behind it and the great principles and teachings of the greatest man on the surface of the world we were only able to produce a constitution that is totally foreign to us. The arguments put forward by the Chairman of the Drafting Committee are not at all convincing.

SHRI GOKULBHAI DAULATRAM BHATT (BOMBAY STATES)

...Dr Ambedkar boldly admitted, and the members of the Drafting Committee do concede that in this Constitution there is no provision for establishing Panchayat Raj, the village panchayat system in India. When there is no such provision, it can never be the Constitution of India. To forget or spurn the system of village panchayats, which has lifted us up and which has sustained us so far and to declare boldly that it has been deliberately spurned—well in all humility I lodge my protest against it. They admit that they have spurned it and have not included it in our Constitution. He has said so and that too with great emphasis. I am pained at the fact that the Chairman of our Drafting Committee has used the words, 'what is the village but a sink of localism and a den of ignorance...I am glad that the Draft Constitution has discarded the village...'

I was grieved to find that our great *Pandit* with all his knowledge of Sanskrit and politics, has opposed the system of village panchayats in this way. If the village is to be discarded, someone can also boldly demand that this Constitution be discarded. But I am a humble person and do not have much experience either. Occasionally I am led by sentiment also to make an observation. But in all circumstances an attempt should be made to include in some form, by the amendments we intend to bring forward, that democracy should be the foundation of our polity. Then alone can our Constitution be complete, then alone will it have life and then alone will we have the feeling that this Constitution is our own. Otherwise we would be rearing this great building on a foundation of sand, and it will surely fall down. This is what I particularly want to suggest and that was why I wanted to speak.

...This much I would like to submit to Doctor Sahib. He is a great scholar, and as such he should treat this country also as a land of wisdom. It is my appeal to him that he should give a place to the soul of India in this Constitution.

SHRI ALLADI KRISHNASWAMI AYYAR (MADRAS: GENERAL)

I owe it to myself to say that I do not share the views of my honourable friend (Dr Ambedkar) in his general condemnation of village communities in India. I must also express my emphatic dissent from his observation that Democracy in India is only a top-dressing on Indian soil. The democratic principle was recognised in the various indigenous institutions of the country going back to the earliest period of her history...

...(One of the criticisms has been that) the Constitution does not give sufficient importance to village communities which are an essential feature of India's social and political life. With the large powers vested in the provincial or state legislatures in regard to local self-government and other matters, there is nothing to prevent provincial legislatures, from constituting the villages as administrative units for the discharge of various functions vested in the State Governments.

PROF N.G. RANGA (MADRAS: GENERAL)

...I am most unhappy that Dr Ambedkar should have said what he has said about the village panchayats. All the democratic tradition of our country has been lost on him. If he had only known the achievements of the village panchayats in Southern India over a period of a millennium, he would certainly not have said those things. If he had cared to study Indian history with as much a care as he seems to have devoted to the history of other countries, he certainly would not have ventured those remarks. I wish to remind the House, of the necessity for providing as many political institutions as possible in order to enable our villagers to gain as much experience in democratic institutions as possible in order to be able to discharge their responsibilities through adult suffrage in the new democracy that we are going to establish. Without this foundation stone of village panchayats in our country, how would it be possible for our masses to play their rightful part in our democracy? Do we want centralisation of administration or decentralisation? Mahatma Gandhi has pleaded over a period of thirty years for decentralisation. We as Congressmen are committed to decentralisation. Indeed all the world is today in favour of decentralisation.

What are to be our ideals? We have stated some of our ideals here in the Fundamental Rights chapter as well as in the directives. But is it not necessary that we should make it perfectly clear in one of these directives that it is the duty of the State to establish village panchayats in every village or for every group of villages in order to help our villagers to gain training in self-government and also to attain village autonomy in social, economic and political matters, so that they will become the foundation stone for the top structure of our Constitution.

...In these objectives, nothing has been said about all those people who are living in our villages...It is high time that we pay some attention to this aspect also.

SHRI M. ANANTHASAYANAM AYYANGAR (MADRAS: GENERAL)

...It is no doubt true that Dr Ambedkar gave an analysis of the several provisions of the Constitution, and unfortunately emphasised certain aspects of it, and gave his own views upon village republics, village autonomy and democracy. He could have spared us and spared the Assembly a controversy over these issues. Left to myself, I would like very much that this Constitution must be based upon autonomous village republics. Democracy is not worth anything if once in a blue moon individuals are brought together for one common purpose, merely electing X, Y and Z to this Assembly or that Assembly and thereafter disperse. That is the present state of India today. People in the villages have had absolutely no opportunity to train themselves for democracy. They have not shared responsibility with anybody; they are absolutely irresponsible. That was the view that was taken and that was the purpose of the British who ruled us for 150 years. They destroyed the elements of our freedom, of our decentralised economy and the village republics that we had. They wanted to centralise the Government and concentrated all power in the Governor General and ultimately in the British Parliament. It was in that view that they took steps to see that the villages did not govern themselves.

We must see that the village is the unit for the social fabric that we are going to build. In the village itself, I would like that the family should be the unit, though for all-India purposes, the individual must be taken as the unit for voting. The village must be reconstructed on these lines; otherwise, it will be a conglomeration of individuals, without any common purpose, occasionally meeting and dispersing, without an opportunity to come together and rehabilitate themselves both economically and politically.

But, as we are situated today, is it at all possible immediately to base our Constitution on village republics? I agree this ought to be our objective. But where are these republics? They have to be brought into existence...Therefore, I would advise that in the directives, a clause must be added, which would insist upon the various Governments that may come into existence in future to establish village panchayats, give them political autonomy and also economic independence in their own way to manage their own affairs.

Later on a time will come when on the basis of these republics or autonomous panchayats a future Constitution may be built. I agree with our leader, the Prime Minister, who spoke yesterday *that this Constitution may be kept in a transitional form for a period of five years so that in the light of whatever experience we may gather in this period, a future Assembly which may be elected on the basis of adult suffrage would re-draft our Constitution or amend or alter it.*

SHRI MAHAVIR TYAGI (U. P. GENERAL)

...Then, a word about the villages. Dr Ambedkar said that he was happy that the 'Drafting Committee has not accommodated the village.' He characterised it as 'a sink of localism and a den of communalism'. It is these sinks of slavery that were facing all sorts of repression in the freedom struggle. When these sinks of slavery that were being charred, burnt and tortured in Chimoor, the pyramids of freedom were applying grease on the back of the Britishers. Unless I raise my voice against the remarks which Dr Ambedkar has made against villages, I cannot face my village people. Dr Ambedkar does not know what amount of sacrifice the villagers have undergone in the struggle for freedom. I submit that villagers should be given their due share in the governance of the country. If they are not given their due share, I submit that they are bound to react to this...

SHRI L. KRISHNASWAMI BHARATI (MADRAS: GENERAL)

...I am sorry, that Dr Ambedkar should have gone out of his way to make certain references and observations which are not in consonance with the wishes or the spirit of the House, in regard to his references to the villages...Honourable Members have referred to the question of villages. I only wish to add this. He says: 'I am glad that the Draft has discarded the village and adopted the individual as its unit.' I would like to ask him where is the individual apart from the villages. When he says that the villages have been discarded and the individual has been taken into consideration, he has conveniently forgotten that the individuals constitute the village; and they number about ninety percent of the population, who are the voters.

SHRI KISHORIMOHAN TRIPATHI (C.P. & BERAR: STATES)

...Taking next the question of election in villages, much has been said about villages. There has been very sharp criticism of the view expressed by Dr Ambedkar when he said that 'the villages are dens of ignorance'. There has been ruthless criticism.

I know this criticism is because of a genuine feeling on the part of the House. The House desires that the villages should come forward and play their full part in the national reconstruction. Since the desire is very genuine, I would request the House to detail out the election procedure in the Constitution itself...

SHRI VISHWAMBHAR DAYAL TRIPATHI (U.P. GENERAL)

The one thing—and to me it appears very objectionable—which I wish to reply is Dr Ambedkar's remark that the Indian soil is not suited to democracy. I do not know how my friend has read the history of India. I am myself a student of history and also of politics and I can say with definiteness that democracy flourished in India much before Greece or any other country in the world...

...There is no doubt that later on the course of political development was arrested for some time on account of invasions from outside. Yet we find that the same democracy continued to function in our villages under the name of village republics. This, the Mover himself has admitted in his address. It is very unfortunate that he should have made such remarks as are not borne out by the facts of history.

SHRI MOTURI SATYANARAYANA (MADRAS: GENERAL)

...The Constitution which is now on the anvil places before us provisions of many kinds. It appears to me from what I have been able to gather from these provisions that it is being built from above and not from below, the base...The people know what that swaraj means for which we have been labouring for the last thirty years and for which we have been fighting for the last thirty years and they are also conscious that the Constitution is being framed for them and not for anyone else. But only the international viewpoint, and not the national nor the swaraj, nor even the villagers' view point is being given weight in the framing of the Constitution. The Constitution should be for the people of the villages so as to ensure food and cloth for them, as it was the lack of these necessities that led us to make our demand for swaraj...

I hold that if we have to provide food, cloth and shelter for our poor brethren, the villages and the village panchayats, should form the base of our Constitution. We should proceed with our work keeping them in mind. It is because we have not done this that we have to consider whether our provinces should be strong or weak, whether our Centre should be strong or weak. These questions arise only because we have not given due importance to our provinces and villages in framing our Constitution. The basic idea underlying the whole constitution is as to how our country will compete with Britain, Russia or America and what relations it will have with them. There is nothing in the whole Constitution to show that our intention was to do something for the inhabitants of our country, for our villagers and our townsfolk, and for the poor people.

So far as production is concerned, there is nothing in it that would make the village people work their utmost in order to produce the maximum quantity of wealth. I think that it will be said in reply to this that later on when this Constitution would be enforced all these would be taken to be implied by its provisions and would therefore be put into practice but that these cannot be specifically included within the Articles of the Constitution. But I hold that just as the face is to a man's character so also a mere glance at the Constitution should be sufficient to reveal the direction in which it tends to move the people. Therefore, I hope that at the time when the Constitution would be considered here, clause by clause, every attempt will be made to include in it provisions for all that we have been promising to provide to our countrymen.

SHRI SURESH CHANDRA MAJUMDAR (WEST BENGAL: GENERAL)

While on the subject of delimitation of powers, I should like to make a very brief reference to Dr Ambedkar's comments on the role of the village community in India's history. It is true that at times the village community stood still when history passed by. But this happened invariably in periods of national depression when everything was in a state of stagnation and the political life itself was disintegrating and the village-community was indifferent to the main course of history. But there were other times—times of healthy national life—when the village community did supply strength. I believe the village community, if it is properly revitalised and made power-conscious, can become not only a strong prop of the State but even the main source of its strength.

SHRI N. MADHAVA RAU (ORISSA STATES)

Several speakers have criticised the Draft on the ground that it bears no impress of Gandhian philosophy and that while borrowing some of its provisions from alien sources, including the Government of India Act, 1935, it has not woven into its fabric any of the elements of ancient Indian polity.

It is very unfortunate that a good deal of controversy arose in regard to village panchayats. Dr Ambedkar's strong remarks on the subject were apparently based on his own experience. But, like Mr Alladi Krishnaswami Ayyar, I wish to speak for myself in the light of my own experience. For over thirty years, the Mysore Government have put the revival of village communities and the improvement of the working of village panchayats in the forefront of their activities. A great deal of public expenditure has been incurred on this account. All officers concerned from the Dewan to the Tahsildar have, according to their lights, given personal attention to the condition of the villages. The present popular Government in Mysore, is, I understand, making still more intensified efforts in the same direction.

The results are, in my opinion encouraging and in some cases, quite gratifying. It is true some villages are chronically faction-ridden and indulge in petty tyrannies, or remain the strongholds of untouchability. A considerable number are apathetic or even moribund. But, about 30% could be classed as good; that is to say they had held regular meetings, collected panchayat taxes, undertaken some optional duties and carried out works of public utility and weekly cleaning by voluntary labour contributed by the villagers and taken steps to ensure the vaccination of children and so on. The success that has been achieved such as it is, is largely conditioned by the initiative of a good headman or other influential land-lords. I am sure that experience in other parts of the country is more or less the same. In certain small Indian States, where the bureaucratic system of administration had not penetrated, I found remarkable self-help and organised effort in the villages. With sustained effort on the part of the provincial and State Governments, the resuscitation of village communities may well be hoped for. As the Members of the Assembly are aware, Gandhiji was very particular about constructive work in the villages. This is what he said on one occasion: 'If the majority of Congressmen were derived from our villages, they should be able to make our villages models of cleanliness in every sense. But they have never considered it their duty to identify themselves with the villagers in their daily lives.' There is nothing in the Draft Constitution to prevent provincial Governments from developing the village panchayat system as vigorously and as rapidly as they are capable of doing. The only point which has now come into prominence is whether the electoral scheme for the legislatures should be founded on these panchayats. If the House comes to the decision that this should be done, two Articles in the Draft Constitution will have very carefully to consider whether by throwing the village panchayats into the whirlpool of party politics, you will not be destroying once for all their usefulness as agencies of village administration.

SHRI T. PRAKASAM (MADRAS: GENERAL)

...Mr Madhava Rau said that the ballot box and ballot paper were not known to our ancestors. I would like to point out to him, that the ballot box and the ballot papers were described in an inscription on the walls of a temple in the village of Uttaramerur, twenty miles from Conjeevaram. Every detail is given there. The ballot box was a pot with the mouth tied and placed on the ground with a hole made at the bottom and the ballot paper was the *kadjan* leaf and adult franchise was exercised. The election took place not only for that village but for the whole of India. This was just a thousand years ago. It is not known to my honourable friend and that is why he made such a wrong statement—a grievously wrong statement and I want to correct it.

IV

INCORPORATION OF ARTICLE 40 IN THE CONSTITUTION(*Full text of debate.)

November 22, 1948

SHRI M. ANANTHASAYANAM AYYANGAR (MADRAS: GENERAL)

Mr Vice-President, Sir, Amendment No.927 stands in my name, but Mr Santhanam has given an amendment to this amendment, for substitution of this. I find that that language is better. With your permission, he may be allowed to move his amendment in the place of mine. If you want me to formally move my amendment, I will do so, but I am prepared to accept the substitution for 31-A. I am prepared to adopt whichever course you direct.

MR VICE-PRESIDENT

Let Mr Santhanam move.

THE HONOURABLE SHRI K. SANTHANAM

Sir, I beg to move.

> *'That after article 31, the following new article be added:*
>
> *"31-A. The State shall take steps to organise village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government."'*

Sir, I need not elaborate the necessity for this clause. Many honourable Members had given similar amendments for village panchayats, but they had also attached to it conditions like self-sufficiency and other matters which many of us did not consider desirable to be put into the directives. What powers should be given to a village panchayat, what its functions should be will vary from province to province and from State to State, and it is not desirable that any hard and fast direction should be given in the Constitution. There may be very small hamlets which are so isolated that even for fifty families, we may require a village panchayat; in other places it may be desirable to group them together so that they may form small townships and run efficient almost municipal administrations. I think these must be left to the provincial legislatures. What is attempted to do here is to give a definite and unequivocal direction that the State shall take steps to organise panchayats and shall endow them with necessary powers and authority to enable them to function as units of self-government. That the entire structure of self-government, of independence in this country should be based on organised village community life is the common factor of all the amendments tabled and that factor has been made the principle basis of this amendment. I hope it will meet with unanimous acceptance. Thank you, Sir.

THE HONOURABLE DR B.R. AMBEDKAR

Sir, I accept the amendment.

MR VICE-PRESIDENT

If you want to discuss anything, you discuss after Prof Ranga's amendment has been moved.

AN HONOURABLE MEMBER

Prof Ranga is not here.

MR VICE-PRESIDENT

I am on the horns of a dilemma. This amendment has been accepted. If I gave an opportunity to one speaker, then the whole question will have to be re-opened. I would value the advice of experts on this matter.

SHRI M. ANANTHASAYANAM AYYANGAR

If you will permit me to say so I shall only quote procedure that is adopted in the House when it sits as a Legislature. Even though a Member in charge of a Bill says he accepts an amendment, he only indicates the line of action for other Members to follow. They may go on speaking and he will always have a right of reply after they have spoken. Even to cut short the debate on certain matters which do not involve a principle, people would like to know what the attitude of the Government is. If it is found useless, they may not pursue that matter and it is for that reason that Dr Ambedkar has said that he accepts the amendment. He still can reserve his reply after the speeches or debates are closed. I therefore, request you to call upon other speakers who want to speak. It is a very important subject and every one would like to throw some light on it.

MR VICE-PRESIDENT

In that case, I shall call upon Mr Prakasam to speak first.

SHRI T. PRAKASAM (MADRAS: GENERAL)

Mr Vice-President, Sir, I feel happy that the Government have with grace accepted this amendment and agreed to introduce it in the Constitution. We should have tried to introduce this at the very beginning of the framing of the Constitution.

SHRI VISHWAMBHAR DAYAL TRIPATHI (U.P.: GENERAL)

Sir, I do not know which Government he has referred to.

SHRI T. PRAKASAM

I am referring to the Government as it is constituted today.

This is a subject which is so very dear to the country and to the Members of this House as is shown by the way in which they have intervened in the general debate and brought it to the forefront of the discussion that this should find a place in the Constitution itself. Dr Rajendra Prasad, who is the President of the Constituent Assembly, himself expressed his opinion in favour of having village republics as the basis of the Constitution.

SHRI VISHWAMBHAR DAYAL TRIPATHI

What has the Government to do with our discussions?

MR VICE-PRESIDENT

The reference was to the President of the Constituent Assembly and not to the Government.

SHRI T. PRAKASAM

Dr Rajendra Prasad has expressed his view in favour of making the village republic as the basis of the whole Constitution, which we are completing these days. On the 10th of May (1948), Dr Rajendra Prasad happened to express his views in this matter. The Constitutional Adviser Sir B.N. Rau, when he dealt with this question, sympathised with the whole thing, but pointed out that it was too late to make any attempt to change the basis of the Constitution which had gone so far. I too agree, that if there was any mistake, the mistake was on our part in not having been vigilant enough and brought this before the House in proper time. When this was coming so late as that, I did not expect Dr Ambedkar as Chairman of the Drafting Committee to be good enough to accept this.

A very serious situation was created by not making the village unit as the real basis of the Constitution. It must be acknowledged on all hands that this is a construction which is begun at the top and which is going down to the bottom. What is suggested in this direction by Dr Rajendra Prasad himself was that the structure must begin from the foundations and it must go up. That, is the Constitution which the departed Mahatma Gandhi indicated and tried to work up for nearly thirty years. Under these circumstances, it is very fortunate that this should come in at this stage, that this should be introduced and worked in a proper way. I must really congratulate Mr Santhanam for having attempted to bring this amendment in this form so that all others who had tabled amendments, of whom I was also one, reconciled ourselves to accept this, because this gives opportunity to the people of every province and the whole of India to go on this basis and work up the whole thing, without interrupting the progress of the Constitution at this stage.

One of the distinguished friends of this House was remarking the other day to me, 'Why are you thinking of these village republics and all these things? The bullock cart days have gone; they will never come back.' This was his observation. I may point out to that friend that the village republic which is proposed to be established in the country and worked is not a bullock cart village republic. The republic that would be established, under this resolution, under the orders of the Government as it were, would be a village republic which would use the bullock carts, not for simply taking the fire-wood that is cut in the jungles to the towns and cities and getting some money for hire; these village republics would convert the work of the bullock carts to the work of carrying paddy and other produce which they produce in the village for their own benefit and for the benefit of the public. These village republics will also be serviceable to those men of ours who are now fighting in Kashmir. I was there the other day; I saw the way in which those friends in the battle field have been carrying on their work. Some of them said to us: 'Well, Sir, when you go back to the country, you please see that the prices of food-stuffs are reduced and that our people when they apply for small sites for habitation, they are secured.' For all these things, the village republics will be of service to the military people in the best possible manner.

This is not a thing which should be looked upon with contempt, having forgotten our history and the history of the world. This is not the first time that this is introduced in our country. This is not a favour that we bestow upon our people by reviving these republics. When we fill the whole country with these organisations, I may tell you, there will be no food famines; there will be no cloth famine and we would not be spending 110 crores of rupees as we are doing today for the imports of food; this amount could be saved for the country. We have gone away far from the reality. These village republics will put a stop to black-marketing in a most wonderful manner. These village republics, if properly worked and organised on the basis of self-sufficiency to which some may take exception, if the village is made a self-governing unit, it would put a stop to inflation also which the Government has not been able even to check to any appreciable extent. This village organisation will establish peace in our country. Today whatever the Government might be doing from the top here by way of getting food from other countries and distributing it, the food would not be distributed amongst the masses ordinarily through the agencies which we have got either in the Centre or in the provinces. All that trouble would be solved immediately so far as this business is concerned. Let me tell you above all that Communism—the menace the country is facing—we are seeing what is going on in China, we saw what was done in Czechoslovakia and we know what the position is in Burma, we know what the position is even in our own country with regard to Communism. Communism can be checked immediately if the villages are organised in this manner and if they are made to function properly. There would be no temptation for our own people to become communists and to go about killing our own people as they have been doing. For all these reasons I would support this, and I am very anxious that this must be carried out in all the provinces as quickly as possible, soon after the Constitution is passed, and I am seeing today the light and prosperity before the country when the Constitution is passed and when this village organisation comes into existence.

SHRI SURENDRA MOHAN GHOSE (WEST BENGAL: GENERAL)

Sir, I am grateful to you for giving me an opportunity to express my feeling on this amendment moved by my honourable friend Mr Santhanam. Sir, you will find there is another amendment No.991 which stands in my name almost identical with the present amendment which has been moved by my honourable friend. I am glad that such an agreed amendment has been moved by my honourable friend, Mr Santhanam, and that it has been accepted by the honourable Law Minister, Dr Ambedkar.

In my opinion the meaning of this Constitution would have been nothing so far as crores and crores of Indian people are concerned unless there was some provision like this in our Constitution. There is another point also *viz.*, for thousands and thousands of years the meaning of our life in India as it has been expressed in various activities, was this that complete freedom for every individual was granted. It was accepted that every individual had got full and unfettered freedom; but as to what the individual should do with that freedom there was some direction. Individuals had freedom only to work for unity. With that freedom they are to search for unity of our people. There was no freedom to an individual if he works for destruction of our unity. The same principle was also accepted in our Indian Constitution from time immemorial. Every village like the organic cells of our body was given full freedom to express itself but at the same time with that freedom they were to work only to maintain and preserve the unity of India.

Our village people are so much familiar with this system that if today there is in our Constitution no provision like this they would not have considered this as their own Constitution or as something known to them, as something which they could call their own country's Constitution. Therefore, I am glad and I congratulate both my friend the honourable Mr Santhanam and the honourable Dr Ambedkar on moving this amendment as well as for acceptance of the same. I commend this.

SETH GOVIND DAS (C.P. & BERAR: GENERAL)

Mr President, very few speeches are being made now-a-days in this House in Hindi. I would, therefore, resume my practice of speaking in Hindi unless of course I have something to explain to my South Indian friends which requires my speaking here in English.

During the course of the speech, he made while presenting this Draft to the House, Dr Ambedkar made some remarks about villages which caused me and, I believe, a great majority of the members of this House, great pain. It is a matter of deep pleasure to me that he has at last accepted the amendment moved by Shri Santhanam. We need not complain if one comes to the right course, though belatedly.

I belong to a province in which perhaps the greatest progress has been made in respect to this matter. Our village panchayats, our judicial panchayats, and our laws for Janapadas are the talk of the whole of India today. There was a time when our province was regarded as a very backward province. But today the whole country will have to admit that our province though small in size has given a lead in many matters to the other provinces of the country. So far as the scheme of village Republics is concerned, it is an undisputed fact that our province has progressed more than any other province towards its fulfillment.

Ours is an ancient, a very ancient country and the village has had always an important position here. This has not been so with every ancient country. In Greece for instance, towns had greater importance than villages. The Republics of Athens and Sparta occupy a very important place in the world history today. But no importance was attached by them to the villages. But in our country the village occupied such an important position that even in the legends contained in most ancient books—the Upanishads—if there are descriptions of the forest retreats, of the sages, there are also descriptions of villages. Even in *Kautilya's Arthasastra* there are to be found references to our ancient villages. Modern historians have also admitted this fact. We find the description of our ancient village organisation, in 'Ancient Law' by Mr Henry Maine, 'Indian Village Community' by Mr Baden Powell and in 'Fundamental Unity of India' by Shri B.C.

Pal. I would request the members of this House to go through these books. They will come to know from these books the great importance the villages have had in India since the remotest times. Even during the Muslim Rule villages were considered of primary importance. It was during the British regime that the villages fell into neglect and lost their importance. There was a reason for this. The British Raj in India was based on the support of a handful of people. During the British regime provinces, districts, tehsils and such other units were formed and so were formed the *talukdaris, zamindaris* and *malguzari.* The British rule lasted here for so many years only on account of support of these few people.

Just as Mahatma Gandhi brought about a revolution in every other aspect of this country's life, so also he brought about a revolution in the village life. He started living in a village. He caused even the annual Congress Sessions to be held in villages. Now that we are about to accept this motion I would like to recall to the memory of the members of this House a speech that he had delivered here in Delhi to the Asian conference. He had then advised the delegates of the various nations to go to Indian villages if they wanted to have a glimpse of the real India. He had told them that they would not get a picture of real India from the towns. Even today 80 per cent of our population lives in villages and it would be a great pity if we make no mention of our villages in the Constitution.

I support the amendment moved by honourable K. Santhanam. I hope that the Directive Principles laid down in the Constitution would enable the provinces to follow the lead given by the Central Provinces in the matter and I hope a time will come when we shall be able to witness the ancient glory in our villages.

SHRI V.I. MUNISWAMY PILLAI (MADRAS: GENERAL)

Mr Vice-President, Sir, by my honourable friend Mr Santhanam moving this amendment and the Chairman of the Drafting Committee expressing that he is going to accept it shows the real feeling of this Sovereign Body towards their less fortunate brethren living in the villages. My honourable friend Mr Prakasam referred to the statement made by the revered leaders Rajendra Prasad and Mahatma Gandhi. But we know it for a reality that the villages are in rack and ruin and if there are to be any amenities or self-government, it is to the villages that this Sovereign Body must give them. The other day when I made a speech on the Draft Constitution, I pointed out that there is no provision to give the rural areas any choice or self-government. Now, under this amendment we bestow a certain amount of power to make the villages self-contained and to have self-government there. I am sure the seven lakhs of villages in the whole of India will welcome the provision of this amendment in this Constitution. It is with the revenue that is derived from the rural areas that it has been possible to create towns, with all amenities therein.

But the man who gives the revenue by way of taxes could not get even the rudiments of amenities, due to a citizen. I feel that by accepting this amendment we will go a long way to reconstruct the villages that have been allowed to go to rack and ruin for centuries together. If the pies are taken care of, the rupees will take care of themselves. So I feel that by having this amendment, we are going a long way towards reconstructing our villages which are in dire necessity of such reconstruction today.

DR V. SUBRAMANIAM (MADRAS: GENERAL)

Mr Vice-President, when our Mother India delivers her Constitution, if there is any living cell in the Constitution, it will be this village panchayat amendment which has been brought forward by my honourable friend, Mr Santhanam. It is a well-known fact that India is standing today as a self-governing unit in the world because of this living cell in our body politic—the village panchayat. Today, if we want to make the country strong and self-sufficient in every respect, this clause in the Constitution or in the Directive Principles is very necessary.

Now there has been some controversy about self-sufficiency. My interpretation when we speak of a village being self-sufficient is this. It may produce say ground-nut in large quantities, and it may export it, even though it may be forced to import *dalda* and other substances for the needs of the people in the village. By saying that it is self-sufficient, we only mean that it may grow all the articles that it can and also import what is necessary from the neighbouring villages. That is my interpretation. But these are matters to be worked out in detail by the village panchayats themselves.

It is clear that as far as this amendment is concerned, there can be no two opinions about it. This amendment must be carried, and in our future Constitution, much more powers must be given to the villages. As a matter of fact, we do not know how many carpenters there are in our land. If we have the panchayats we need go only to their records and pick up the number of carpenters in every village. These panchayats will serve a very useful purpose. This clause is very essential, and I support this amendment.

SHRI SATYANARAYAN SINHA (BIHAR: GENERAL)

Sir, we have had enough discussion, and after Shri Bharathi, I would like to move for closure.

SHRI L. KRISHNASWAMI BHARATHI (MADRAS: GENERAL)

Mr Vice-President, I congratulate the Honourable Mr Santhanam for moving and Dr Ambedkar for agreeing to this amendment, I must confess that I am not fully satisfied with this amendment, for the very simple reason that even today even under the present Constitution, I think the Provincial Governments have enough powers to form village panchayats and operate them as self-governing units. But to the extent to which it goes I must express my satisfaction. It must be remembered that this is in the Directive Principle, and I see no reason why the idea of self-sufficiency should not have been accepted by Mr Santhanam. The reasons that he gave for not accepting that principle are not at all convincing. In fact, two or three honourable Members—Mr Ranga, Shri Ananthasayanam Ayyangar and Mr Prakasam have given amendments with these ideas. Mr Ananthasayanam Ayyangar's amendment says there is great need for effective decentralisation of political and economic powers. After all what the amendment seeks to give is only political independence. Political independence apart from economic independence, has no meaning. The idea behind the Directive Principles is to emphasise the way in which we want the country to function and for that we must make it quite clear to the whole world that economic democracy is important and for that decentralisation of economic power is important. It is that aspect of the matter which Gandhiji emphasised. Decentralisation both in the political and economic sphere is absolutely essential if India is to function as a democracy. In fact, speaking at the Asian Relations Conference, Mahatmaji said pointing out to the City of Delhi:

> This is not India. You people are seeing Delhi—this is not India. Go to villages; that is India, therein lives the soul of India.

Therefore, I do not know why they should fight shy of 'self-sufficiency'. It has been sufficiently explained by Mahatmaji, and if it is necessary I would like even to say some words from his speeches.

THE HONOURABLE SHRI K. SANTHANAM

May I point out to the honourable Member that self-government is not merely political? It may be economic or spiritual.

SHRI L. KRISHNASWAMI BHARATHI

I quite understand it and that is the reason why it should be made clearer. If self-government includes that, it is much better that we explain it because that explanation is very necessary. I would very much like the word 'self-sufficiency' in the Gandhian sense of the word, self-sufficiency not in all matters, let it be remembered, but in vital needs of life, self-sufficiency in the matter of food and clothing as far as possible. That is what Mahatmaji said. It does not mean absolute independence. Sir, I would ask leave to read from Mahatmaji's articles certain important portions which will clear up the matter. This is what Gandhiji wrote:

> My idea of Village Swaraj is that it is a complete republic, independent of its neighbours for its vital wants, and yet interdependent for many others in which dependence is a necessity.

An honourable Member asked, 'Well what can you do? Some villages produce only paddy; they cannot have self-sufficiency.' Is it such an impossible proposition? Gandhiji was emphatic in saying that he was not at all suggesting that the village should be independent of all these things; but in certain matters you must have self-reliance, the basic idea being *'no work, no food'*. Now the villagers think that as it is a Swaraj Government, *khadi* and food will flow from the heavens as *manna*. Gandhiji's idea in this self-sufficiency is 'Don't expect anything from the Government. You have got your hands and feet; work: without work you will have no food. You can produce your own cloth, you can produce your own food. But if you do not work, you shall have no food, no cloth.' That is the basic idea of decentralisation and economic democracy. And if the villagers are to have that idea we must put it here and tell them about self-sufficiency. 'Do not expect anything from the Government. Who is the Government? After all you constitute the Government. You must work, you must produce. Do not depend on these mills. Go on with your *charkha*, make your own food.' That is the basic idea of self-sufficiency and decentralisation and economic democracy.

Mahatmaji said:

> My idea of village Swaraj is that it is a complete republic, independent of its neighbours for its vital wants, and yet interdependent for many others in which dependence is a necessity. Thus every village's first concern will be to grow its own food crops and cotton for its cloth. It should have a reserve for its cattle, recreation and playground for adults and children. Then if there is more land available, it will grow *useful* money crops, thus excluding ganja, tobacco, opium and the like. The village will maintain a village theatre, school and public hall. It will have its own waterworks ensuring clean supply. This can be done through controlled wells and tanks. Education will be compulsory up to the final basic course. As far as possible every activity will be conducted on the cooperative basis. There will be no castes such as we have today with their graded untouchability. Non-violence with its technique of *Satyagraha* and non-cooperation will be the sanction of the village community...

Sir, I think there are only a few more lines of Mahatmaji's picture of life. With your leave I should like to finish it.

> ...There will be a compulsory service of village guards who will be selected by rotation from the register maintained by the village. The government of the village will be conducted by the Panchayat of five persons, annually elected by the adult villagers, male and female, possessing minimum prescribed qualifications.

This is a rough idea of what Gandhiji felt, and therefore, in my opinion it is very necessary that this sovereign body should enunciate and give its views on this fundamental tenet of Mahatma Gandhi, his idea being that there must be decentralisation and the village must function as an economic unit. Of course, the honourable Mr Santhanam said that it is included. I only wanted that it should be made more explicit so that Mahatmaji's soul will be very much pleased. He said that India dies if the villages die, India can live only if villages live.

THE HONOURABLE DR B. R. AMBEDKAR

Sir, as I said, I accept the amendment. I have nothing more to add.

MR VICE-PRESIDENT

In this matter my decision is final. I have not yet found anybody who has opposed the motion put forward by Mr Santhanam. There might be different ways of phrasing it, but at bottom and fundamentally, these speeches are nothing but praising the amendment.

The question is:

That after article 31, the following new article be added:

'31-A. The State shall take steps to organise Village Panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.'

The motion was adopted.

MR VICE-PRESIDENT

The question is:

'That the new article 31-A stands part of the Constitution.'

The motion was adopted.

Article 31-A was added to the Constitution.

V

FROM THE GENERAL DEBATE ON THE THIRD READING OF THE CONSTITUTION

November 17-26, 1949

SETH GOVIND DAS (C.P. & BERAR: GENERAL)

I would like to make it clear at the same time that the civilisation and culture, which is the heritage of our early history and the continuity and vitality of which are visible in all spheres of our society and life and for the maintenance of which in our age Mahatma Gandhi—the Father of our Nation—sought to promote in many a way, should not be rejected by us...Modern India should be so built up that we may be able to retain our culture and civilisation as well as also the advantages of the modern age. If we look at our Constitution from this viewpoint, we would discover many shortcomings in it.

SHRI LAKSHMINARAYAN SAHU (ORISSA: GENERAL)

...India is a country of villages. In complete disregard of the villages we have turned into citizens and ask for rights of citizenship. I would say that we should have 'village-zen-ship' rights also. I do not see 'village-zen-ship' rights anywhere in this Constitution. What is the step that we should take at the present moment? We should revive the cottage industries. But the idea never occurs to us. When a few people make a hue and cry about a thing it is said that it may also be included...There is no talk of decentralisation now. We had set before us the object of decentralising India and of setting everything in order. But there had been so much centralisation that there is only one centre...

SHRI K. HANUMANTHAIYA (MYSORE STATE)

...When I look into the list of members of the Drafting Committee, and see their names, I must say that many of them are very respected names. Many of them are very able men. But only some of them were in sympathy with the freedom movement. Most of them, if I scrutinise the names of members of the Drafting Committee, I find were the people who were not with the freedom movement in the sense in which many of our leaders were. They naturally brought their outlook and knowledge of things into the Constitution-making. That was not the kind of psychology or the knowledge that the Congress, for instance, or the country needed. I submit with all humility, they were no doubt very learned in the several laws and rules that were framed before we got independence. They were very well versed in case law and code law. But that was not sufficient for the purpose of hammering out a Constitution for a great country like India and its future. It is something like this: we wanted the music of *Veena* and *Sitar*, but here we have the music of an English band. That was because our Constitution makers were educated that way. I do not blame them rather, I would blame those people, or those of us, who entrusted them with this kind of work.

Look at the way the structure of the Constitution is built up. We were, during the days of freedom struggle, wedded to certain principles and ideologies as taught to us and as propounded to us by Mahatma Gandhi. The first and the foremost advice which he gave in his picturesque language was that the constitutional structure of this country ought to be broad-based and pyramid-like. It should be built from the bottom and should taper right up to the top. What has been done is just the reverse. The pyramid has been reversed.

Though our constitution makers have not adopted the course of decentralisation, still I have faith in the people of India. They will be able to assert themselves in times to come and make this democracy work equitably from Cape Comorin to the Himalayas. Whatever may be the set of rules, whatever may be the set of articles that we might draw up, human mind and human energy are greater factors in life and I have full faith that they will be able to rectify matters in times to come.

PROF K.T. SHAH. (BIHAR: GENERAL)

...The ability to work a democracy comes by having the responsibility to do so, and not by paper professions in its name, and practical negation of its forms. Had we agreed to such arguments in the past, had we accepted the suggestion of the

British that the people of India were not educated enough and aware enough of their rights and obligations to be able to work a democratic Government of their own, we should never even now have obtained our independence, and the right to self-government which is now our proud possession.

It may be that the Constitution is, in intent and form, democratic. But the idea of Democracy in the shape of the Government of the people, by the people and for the people, is far from being realised if one scrutinises carefully the various Articles of this Constitution.

These are some of the illustrations. Many more I can give you which would show that the actual doctrine of a working democracy is anything but fulfilled in this Constitution that we are now passing. The mutual relation, for instance, of the several organs and even the scope for local self-Government I mean, are extremely limited. If you scrutinise the schedules relating to the functions of the Centre—the subjects they are called—and of the local units, you will see that the local units are made utterly powerless. They have neither power nor funds to do their duties effectively. A previous speaker actually mentioned that real self-government, real democracy, can only be in the unit. In the Centre, you should have only representatives of the representatives of the representatives; you see there only delegated power from the units. Now that alone would be real responsible popular government.

SHRI R.K. SIDHWA (C.P. & BERAR: GENERAL)

I am really sorry that as far as the local bodies are concerned, this Constitution has been simply silent, silent in the sense that they are not given the due share which we all aspire to see that every village and every villager should become prosperous and self-sufficient. The ideal of our great leader, Mahatma Gandhi was the 'Rural Swaraj'—that every village should be self-sufficient and self-supporting. I am sorry to state that part has not been fulfilled in this Constitution

As I said the other day, in the earlier stages, when we were discussing the Objectives Resolution, the House was unanimously of the view that the Centre should be strong and therefore the Drafting Committee had that point in view—I do not say that the provinces are mere skeletons, they have been given many powers—and the Centre has been made strong. I am for it; but that does not mean that the villages should not also be made strong and the villages should not be left to themselves. I am indeed glad that the various provincial Governments have passed Panchayat legislation; the Bombay Government has passed the Bombay Panchayat Act; the Madhya Pradesh Government have passed the Janapada Act; the United Provinces Government has passed the Gaon Panchayat Act and the Bihar Government has enacted the Village Panchayat Raj Act. All these are there. But, if you do not give them the required money, what can they do? My regret is that the legitimate share of the finances due to the villages is not given to them for village administration and village self-sufficiency. The provinces do not give the villages their due share. The local bodies today are a sham, I should say, in this country. I hope, whatever the Constitution, the provincial Governments will make efforts to see that the villages are made self-sufficient and unless we have village self-sufficiency, there will not be happiness, and prosperity for the common man in the country, for whom we have the greatest regard.

SHRI GOKULBHAI DAULATRAM BHATT (BOMBAY STATES)

...When I examine the Constitution from the point of view as to how far the ideology of Mahatma Gandhi finds place in it, I begin to feel that it would have been much better if we had provided for our work being done mostly by Panchayats. I give very great importance to this aspect of the problem, and whenever I have had an occasion to speak here or elsewhere I have urged the acceptance of the institution of Panchayats...But it is my belief that we would have to reach the conclusion after experience that our electorate should consist of the village panchayats and that persons elected by them should be considered to be popular representatives.

SHRI M. ANANTHASAYANAM AYYANGAR (MADRAS: GENERAL)

...Left to myself, I would have preferred that the village ought to have been made the unit, and panchayats must have been formed on adult suffrage with local councils etc., and elections must have been indirect...

SHRI H.V. KAMATH (C.P. & BERAR: GENERAL)

...Mahatma Gandhi wanted India to be a decentralised democracy. He told Louis Fischer, the eminent American publicist some years ago that ‘there are seven hundred thousand villages in India each of which would be organised according to the will of the citizens, all of them voting. Then there would be seven hundred thousand votes and not four hundred million votes. Each village, in other words, would have one vote. The villages would elect the district administration; the district administrations would elect the provincial administrations and these in turn would elect the President who is the head of the executive'...A time will arrive when India is stabilised and strong, and I hope we will then go back to the old plan of the Panchayat Raj or decentralised democracy, with village units self-sufficient in food, clothing and shelter and interdependent as regards other matters. I hope we will later go back to that Panchayat Raj.

...Then there is provision for village panchayats in the directives of the State policy. Though Dr Ambedkar at first stigmatised the villages as sinks of superstition and ignorance or something like that, it is good that we embodied in the Directive Principles the salutary provision for village panchayats.

...Let us strive to reach the goal envisaged by Mahatma Gandhi and all our prophets, sages and seers, the goal—I would not call it, of *Sadhunam Rajyam* or the Kingdom of God on earth; I would simply call it Panchayat Raj.

SETH DAMODAR SWARUP (U. P.: GENERAL)

The structure of a modern State is generally based on division of powers between two compartments—Provinces and the Centre. This system is already over-centralised. If we wish to end corruption, bribery and nepotism, the system of two compartments does not seem to be appropriate. For this we need a four-compartment system. As I had once proposed there should have been separate village republics, separate city republics and separate provincial republics and they should have federated into a central republic, that would have given us a really democratic federal structure...

SHRI T. PRAKASAM (MADRAS: GENERAL)

This is not the Constitution which I expected for the people of our country, the Constitution, the Constitution which I was expecting along with many others who have been labouring for attaining the freedom of this country, the Constitution planned out by Mahatma Gandhi, not only planned out, but also endeavoured to be put into practice. Panchayat Raj was the one which he *planned out and recommended to the nation...You know more about Mahatma Gandhi than myself or than anybody else in this country and you, Sir, were good enough to send a reply while the drafting of the Constitution was in progress, to a letter written to you by one ardent constructive worker, an advocate, an educated man who has spent his time in the villages for a good time. In that letter he suggested about this Panchayat organisation of Mahatma Gandhi and you replied to him in detail and you were impressed by that because you were one of the foremost followers of Mahatma Gandhi and a copy of that letter was given to me by that friend and that letter was referred by you to Shri B.N. Rau, the Constitutional Adviser. I raised that point elsewhere when we were discussing and everybody was impressed there, but I myself found it difficult to introduce the Panchayat Constitution—the framework of that—into the Constitution that had made considerable progress. So we dropped it and the leadership then suggested that there would be the Directive Principles introduced into the Constitution. We have got that here now. Therefore, the Constitution which I was longing to have was that Constitution. It is only that Constitution that would give really food and cloth and all the necessities of life to the millions. The millions were ignored during the British Raj and they were ignored in our country even after the British left and we also ignored them and we are proceeding with this Constitution.*

This is not a Constitution that we, the people of this country wanted. Mahatma Gandhi when he took up the organisation of this country in the name of the Congress at once saw how this country could be helped and how the millions could be helped.

Therefore, I am submitting to the honourable Members of this House who are all persons who have made great sacrifice to achieve the freedom of our country, that whenever it was pointed out that Mahatma Gandhi's scheme was the proper scheme, the whole House rose in one voice as it were, and they demanded Panchayat Raj system. But because it was too late it could not be introduced into this Constitution that we were making; but every one was for that, and every one is referring to the same thing in their speeches just as they have been doing in the past.

I am also glad about the introduction of the village panchayat system in the Directive Principles. The execution or the fulfillment of it depends upon you and others who would be in charge of this country and the Government. I understand that in the Uttar Pradesh, Pandit Govind Ballabh Pant's administration has set up panchayats and Assam had established them even before that. If this example is followed by the provinces of India the day of redemption of the millions of India would not be very far off.

DR RAGHU VIRA (C.P. & BERAR: GENERAL)

...If the facts I place before you from the history of our country are not to your taste you may not accept them. But I do ask that if Sir B.N. Rau our constitutional adviser could go to Ireland, Switzerland or America to find out how the people of those countries are running their governmental system, could you not find a single person in this who was well read in the political lore of this country who could have told you that this country has also something to contribute, that there was a political philosophy in this country which had permeated the entire being of the people of this country and which could be used beneficially in preparing a Constitution for India. It is a matter of deep regret to me that this aspect of thought was not considered at all by us.

SHRI ARUN CHANDRA GUHA (WEST BENGAL: GENERAL)

...It has been said, and I think it has been rightly said, that this Constitution has no character of its own. Here in our Constitution we have failed to reflect the aspirations of the masses and to reflect the ideology of the revolution which we have been conducting and of which this Constituent Assembly is the product. Decentralised economy based on village panchayats should have been distinctly mentioned as the fundamental principle and basis of the new state.

This Constitution is a product of a revolutionary movement and it must reflect the aspirations of the revolutionary masses. We have been conducting a revolution and we are in the midst of it and we have not come to the end of our journey. But during the course of our struggle we have been given some revolutionary and economic ideals which, I am afraid, have not been correctly represented, except two niggardly concessions to the ideology of Gandhiji in Articles 40 and 43; i.e., regarding village panchayats and cottage industries. Even retaining the authority for the Centre, even retaining some provision for stabilising the society, this is a thing which could have been conceded and provided for in this Constitution. So this Constitution cannot satisfy the needs of the revolution. But I do not feel frustrated. I know history is a developing process...I think this Constitution of ours is only a stop-gap arrangement. We have to proceed further so that the revolutionary aspirations of the masses may be correctly represented in the Constitution that will be framed.

SHRI SHANKARRAO DEO (BOMBAY: GENERAL)

While appointing the draftsmen of our Constitution, we were eager to have the knowledge of the constitutional pundits, and the precision of the constitutional lawyers and we have got them in full measure...But we did not choose to have the wisdom of the statesmen whose main asset is mother wit and commonsense, nor did we choose to fashion our Constitution in the spirit of our Revolution, because none of the makers of this present Constitution can claim to have passed the test of the revolutionary struggle which preceded the year 1946 when the Constituent Assembly met. In fact, the Constitution can hardly be called the 'child' of the Indian Revolution. Look at the Constitutions of the world which are the products of revolutions. They have a stamp of their own, by which even a man who runs can read them as the British, the American or the Russian. The Constitution which would rule the Indian people has got every institution which guarantees liberty to man, every principle which promotes progress, peace and fraternity, but at the same time we must admit that the Constitution has not made provision for adequate and effective machinery for the implementation of any definite principle of progress inspiring our Revolution...Though we say that we have made a Revolution and we have come to power on the crest of the non-violent Revolution led by Mahatma Gandhi, still we must admit that the principles on which that Revolution was based have not gone deep into the body politic or in the Indian society. We followed Mahatma Gandhi. We did what he asked us to do, because he promised us that he would give us independence. But we must admit that, though we followed him, we did not accept his entire conception of life. It was a political Revolution which has given us power—political—which we have tried to embody in this Constitution. But as far as social or economic conceptions of Mahatma Gandhi's ideology of life are concerned, we must admit that we have to travel far before we can say that we are anywhere near to them. How often has our Prime Minister emphasised that the world is looking to India with an expectant eye, and that expectancy is for finding a way out of the present crisis that the world is facing. We must regretfully admit that there is very little in our Constitution which they can feel as something new, which if they copy will enable them to tide over the present crisis. We have drawn very liberally from the Constitutions of different countries like America, England, Australia, Canada, Ireland, Germany and so on. But there is very little that is in our Constitution which they can, in their turn, accept. It has been a one-way traffic practically, I am afraid. But as I said, it is no fault of any individual. If it is a fault, it is the fault of us all, because we have not faithfully followed our Master. I would not say that we have consciously tried to betray or deceive him. It was our shortcoming, it was our weakness that has disabled us from accepting what he gave us as the philosophy of a non-violent, peaceful life.

We must regretfully admit that as far as we are concerned we are not in a position today to hold up the pattern of a Constitution which can give us and the rest of the world a non-violent social order. Except Section 40 on Gram Panchayats which runs four lines in this document of 395 Articles and 8 schedules and a bare mention of cottage industries, there is no room for the Gandhian way under which the pyramid-like constitutional frame-work would be broad-based on the million panchayats vital with the initiative and creative energy of the common man. Sir Charles Metcalfe in his memorandum before the Select Committee of the House of Commons in 1832 has well brought out how these panchayats kept the even tenor of our life and culture when dynasties toppled down like nine-pins and revolutions succeeded revolutions. In the centralised society of today one bomb on the power plant is enough to extinguish all light and there is no single lamp left to light up darkness. But where many lamps burn with little oil in the tiny mud pots, there may not be the flood light that dazzles but there will never be darkness. I am afraid in this highly centralised Constitution of the Indian Republic there is a possibility of there being apoplexy of the heart and paralysis on the ends.

They expect that the Constitution which has been made by the apostles of the great Martyr will breathe his breath. But should we not be rational and must not be moved by sentiment. Reason demands that we must be realistic. There is no scope in this world of stern reality for building a Utopia. Reality demands that the society, before being recast, must be stabilised. *But how often have the exponents of real-politic and statecraft been enmeshed in their own nets? How often has the reality been a mere passing phase? We must stabilise but at the same time should we forget that what we stabilise today will grow like a Leviathan and* *cast its shadow. In the progress of history and the affairs of man, there is no resting place. It has never happened in the history of man that he has built in a hurry and changed in leisure without demolishing what he has built. If we build today on the foundation of this Constitution of centralisation* par excellence *we cannot any day reorient our life and society.*

SHRI S.M. GHOSE (WEST BENGAL: GENERAL)

I lay more stress on the provision of panchayats. I am aware that the provision is not the one which we wanted it to be, yet I am confident that if we all put our strength and soul into it and work the Constitution which has provided the basis for the panchayats, God-willing we shall succeed.

SHRI S. NAGAPPA (MADRAS: GENERAL)

I once again make an appeal to the Members that we should make it a point—because most of them will be the people who will work this Constitution to see that it is worked in the spirit in which it is enacted. Only then can we realise the dreams with which the people have enacted this Constitution. Establishing of *gram panchayats* and cottage industries, and all these things will go a long way to help the poor people.

SHRI JASPAT RAI KAPOOR (U.P.: GENERAL)

...The latest recruit to the ranks of hostile critics is a person no less than Shri Sampurnanand, Education Minister of U.P. He said: 'It is my conviction that this Constitution is not really worthy of us'...'A Constitution is something of a sacred character which inspires future generations. It is in the case of important States the embodiment of a living faith, the philosophy of life of those who framed it. You have only to look at the Soviet Constitution to realise.'...'Judged by this criterion, our Constitution is a miserable failure. The spirit of Indian culture has not breathed on it: The Gandhism by which we swear so vehemently at home and abroad, does not inspire it. It is just a piece of legislation like, say, the Motor Vehicles Act.'

One of the criticisms against this Constitution is that it is not inspired by Gandhism, as Shri Sampurnanand has said and some other friends also have said it, though their number is small. But nothing is farther from truth than this. The chapter on Fundamental Rights and that on Directive Principles give a direct lie to such criticism.

The second thing that Gandhiji wanted was that power should be in the hands of the masses, the peasants and labourers. Have we not really provided for that also? What does adult suffrage mean? We have taken a bold step in providing adult suffrage. It is a risky experiment which we are going to make. In deference to the wishes of Mahatmaji we are going to take that risk and I hope and trust that we shall not be sorry over this experiment.

What Mahatma Gandhi was particularly anxious was that there should be village panchayats and that they should enjoy a certain amount of autonomy. That is exactly what we have provided for in Article 40 of our Constitution. This is what it says: 'The State shall take steps to organise village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.' So this is what we have specifically provided for in the Constitution. Those who talk of centralisation of Government would do well to look at Article 40 in the Constitution. True, it is the Directive Principles, but where else could it be, and what more could you do at this stage? You could not have established village panchayats by one stroke of the pen or by merely waving a magic hand. All that you could do was to set forth your firm determination to proceed in that direction, and that is what we have done.

SHRI ALGU RAI SHASTRI (U.P.: GENERAL)

When we proceed further, we find that the so called Directive Principles, wherein the ideal of our country and the rights of the people are given, that though the language is quite attractive, fine and dignified yet it is nowhere said that the State take the responsibility to feed, to clothe and to provide the other basic needs of human life to its citizens. It is no doubt true that we have said that we shall strive to provide as far as possible all these things. But, while we have very proudly referred in the preamble to our giving this Constitution to ourselves we have suddenly become very meek and humble in a place where we should have very emphatically and loudly declared that since we were assuming sovereignty to ourselves we would be making provisions for the bread, the clothes, housing and the other basic needs of man in the chapter relating to Fundamental Rights. In our ancient polity it was the precept that the *raison d'etre* of the State was to provide the basic needs of life to everyone of its citizens. But, in this matter, we in this Constitution have become extremely modest and we qualify our promise in this respect as far as possible and as far as it lies within the economic capacity of the State, and in this way have shirked our real duty to our people. The fact is, therefore, that there is not the least hint of a promise of this type in the chapter on fundamental rights, and the people who were expecting to see some such thing in the body of this Constitution are today greatly disappointed.

I appreciate Shri Shankarrao Deo's views that the Indian Constitution does not seem to bear the Gandhian outlook. But I would tell him and other friends sharing his views that, whatever be the position, though Dr Ambedkar had previously made fun of the Panchayats, yet they find a place in this Constitution. Village Industries have also been given a place here, and there is also a mention of prohibition. Its greatness lies in the fact that the problem of untouchables has been solved and the general masses have been given the right of adult Franchise, a right to vote. All these things are its great peculiarities and in view of them, we should take it that the soul of the Father of the Nation, Gandhiji, will be happy at this.

SHRI AMIYO KUMAR GHOSH (BIHAR: GENERAL)

...We have given a good-bye to the Panchayat system. So much so, that in the name of co-ordination and better administration, we have reduced the States to the position of mere order carriers.

DR P.S. DESHMUKH (C.P. & BERAR: GENERAL)

...One great merit of this Constitution I consider is that the people of this country are not going to have a Constitution very much different from what they are familiar with during the last ten or twelve years. With the exception of responsibility at the Centre it is essentially the Act of 1935. I do not mean this, for the moment, at any rate, as a sort of condemnation, I am prepared to regard it as a merit and not a demerit because the people will not have much difficulty in understanding the Constitution.

...It is no exaggeration to say that there is, however imperceptible, a conflict arising between the Government on the one hand and the people on the other. It is no use consoling ourselves by saying that the discontent is not able to focus its attention or to organise itself in one single party so as to damage the administration of the present day. But that may very easily come about because the signs and the seeds are there. The people are thinking that this is not our administration because they have got so many grievances, so many items of discontent. So, from that point of view I am doubtful whether this Constitution really answers or satisfies either the genius of the Indian people or the requirements of the present age.

SHRI SITA RAM S. JAJOO (MADHYA BHARAT)

There are provisions in the Constitution which show that we have whole-heartedly followed the Gandhian philosophy. The Constitution contains the seeds of all that Gandhiji had taught us and these seeds would flower if the Constitution is worked properly.

SHRI SHYAMANANDAN SAHAYA (BIHAR: GENERAL)

...I feel that in the matter of framing the Constitution we have superimposed a Constitution from above and have not made a real effort to start from village life. This matter, as you will remember, formed the subject of an important discussion in this House and I must admit that for once and for the first time I thought Dr Ambedkar was not only in the wrong but very much in the wrong. His idea of the village life in this country appeared to be highly inaccurate. It is the countryside that provides all that we need in the towns. Whether you look at the military, the civil administration or the production of food, it is the village and the villager that supply the needs and it will not do to say that they are past redemption. After all they form the bulk of the population of this country. If they have not been up to the expectation of some people, who is to blame? The Centre in the past did not give them the attention that they deserved. Do we propose to do the same? If we do so I submit we shall do so at our peril. Unfortunately, we have kept the 1935 Act very much in the forefront and hence the other aspects necessary for the uplift of this country have not been properly thought out and have not got the attention that they deserve.

SHRI LOKNATH MISRA

...I think, as many friends especially the honourable Mr Prakasam said, our Constitution could have been genuine only if we had built it on the solid foundation of panchayat raj which is still in our veins and still favoured by our people. That would have given us little democracies and enabled people who will be democrats to exercise their rights with a responsibility and with zeal and also with joy. But now under this Constitution, there will be two classes, a new ruling class at the helm of affairs and at the bottom there will be the common man exercising a vote once in five years...

SHRI GOPAL NARAIN (U.P. GENERAL)

...One more point I want to emphasise. There has been over-centralisation. The local legislatures have been reduced to the status of local bodies, municipalities, local boards and the like, and, as a necessary corollary, the provincial legislatures will turn the local boards and municipalities to nullity. Though Panchayats have been given some powers, I fear they will not have any scope for working. This, in my opinion, is not good.

SHRI S.V. KRISHNAMOORTHY RAO (MYSORE STATE)

Then there was a charge that Gandhian principles have been sacrificed. I already submitted that we have embodied provisions for removal of untouchability, for national language, for communal harmony and for goodwill and guarantees to minorities, encouragement of gram panchayats and village industries and for protection of milch cattle. These are the planks on which Gandhism flourished in this country and it created a non-violent revolution in this country. If these principles have been embodied in the Constitution, I want to ask how Gandhism has been sacrificed in this Constitution. I submit that enough provision has been made for the carrying out of the programme that was enunciated by the Father of the Nation. This Constitution is a harmonious blending of the best Indian traditions—the political and constitutional experience of other countries and the Gandhian ideals.

SHRI UPENDRANATH BURMAN (WEST BENGAL: GENERAL)

...Coming next to the actual structural part of the Government, that will be set up in the near future, I would only ask the honourable Members of this House to take note of one Directive Principle that has been inserted in this Constitution, I mean the Village Panchayat Organisation; and along with that the Directive Principles of educating our children upto the age of 14 years by giving them free and compulsory education. If these two directives are properly observed by our future Governments, then I think the condition of this country will be bettered in the near future and that will be to the good of the whole country...When we have given adult franchise—when we have trusted each and every adult citizen in the country to be the masters in the forming of the Government, it would be a folly if we delay even for a single day the Constitution of these panchayats. When you have trusted them to the extent of giving them a voice in the composition of the Government, it is but natural that you should trust them with some responsibility. Once you do this, that will relieve us of a lot of burden of administrative responsibility, at least in regard to day to day affairs. So long as you expect the Government servants to take charge of the masses, the masses will remain irresponsible and will go on complaining against the Government. But once you entrust them with certain responsibilities for local administration, they will be keen on taking charge of their affairs.

...Of course criticisms have been made that the village panchayats cannot work, because our villagers are ignorant, and that there will be a scramble for power. But a glance at the daily papers will convince us that in most of the provinces there is a scramble for power even on the part of provincial leaders. So, it would be an absolutely silly argument to say that the masses are not yet fit to govern even in their local administration and the interests that concern them the most. My only submission is that as soon as possible we should form these village panchayats and transfer the bulk of the powers that concern the villages to these village panchayats, so that many of the problems of governing this country will be solved.

SHRI P. KAKKAN (MADRAS: GENERAL)

...I am very glad that the Panchayat system has got a place in this Constitution.

I hope that the Government of India will take necessary steps to bring the panchayat system into every nook and corner of this vast country and develop *gram swaraj* according to the wishes of Mahatmaji without any distinction of caste, creed or colour.

SHRI R.V. DHULEKAR (U.P. GENERAL)

...The third point is that we are going to have village panchayats which is an extension of democracy to the lowest ground. For some years, we had democracy in India, but the common man never felt that he possessed any democracy. As we extend our democracy to the villages and establish the village panchayats, and ask the common man to govern himself, I believe that India will be far better...

SHRI P.K. SEN (BIHAR: GENERAL)

...Reference has been made more than once to the fact that the panchayat system should have been the basis, that the old idea which the Father of the Nation had expressed very explicitly, namely, that there should be the panchayat at the bottom and therefore the democracy broad based in panchayats should rise to a cone and that cone will be the perfection of democracy, that this should have been followed I do not see any reason why that should be barred even now. Adult franchise is a thing, as I have said, uncharted and it is by proper navigation that we have got to find out where the haven of safety lies. Gradually, it is this panchayat system, which, I doubt not will come, that may be the basis of the democracy that we are going to usher forth.

SHRI B.P. JHUNJHUNWALA (BIHAR: GENERAL)

...Every other power should be, as much as possible, decentralised and given to the unit of a village or groups of villages what to say to Provinces. With that purpose in view, I had given notice of an amendment to the Preamble that after the word 'Republic' the words 'to be worked on the basis of autonomous village units or groups of villages organised on the principle of self-sufficiency as far as practicable' be added...The object of the amendment was that when we are going to have a democratic form of Government we should have as real a democracy as possible by giving as much power to as small a unit as practicable so that the individuals composing the unit may have easy and ready remedy which is possible under a village republic.

Regarding the village republic, I want to draw the attention of the House to one matter. I do not know whether it is the opinion of the Honourable Dr Ambedkar or of the Drafting Committee as a whole that Dr Ambedkar voiced while introducing the Draft Constitution for the second reading.

I only say that nothing can be more uncharitable and unjust to the villagers than what Dr Ambedkar had said. It is not only uncharitable but it is not based on facts. Dr Ambedkar himself admits that they have survived and they have kept the independence of India. He says that mere survival is not enough, mere survival has no value. What is the position today? We have to go about begging even for our food-stuffs. We would have been nowhere even with this independence, but for the preservation of village economy at least in matters of food, and it is only by introduction of village units in matters of economy that we shall be able to keep up our independence in the real sense of the term and survive. It is because of the preservation of the villages that we survived and lived happily. This has been admitted by Dr Ambedkar. Today we cannot produce what we want. Whatever wealth in the villages there was, has been either taken away or whatever wealth in the form of land or in the form of cattle was there has deteriorated and vanished. The land which was there has become almost barren. Why? Whatever manure was there, the manure in the form of bones etc., which used to keep up the fertility of the land, was being exported because of the foreign trade. All the bones and all the dead animals, whatever was there, used to be left in the fields and used to decompose very slowly and keep up the organic value of the land and the fertility of the soil. Regarding cattle, when Lord Linlithgow came, he started a campaign for breeding of bullocks i.e., for good breeding. This lasted for about a year or so, but what happened during the war was that all the best cattle of the country were slaughtered for the military, for the preservation of the British Empire. When Dr Ambedkar says that the villagers and the village republics did not take part in the preservation of the country, I would enquire of him as to whether he has read the history of the non-cooperation movement. If he has read, he will know that the villagers responded very well to the call of our able leaders who effaced themselves and who went to the villages thinking that it is the villages who will bring independence to the country. The villagers played the most important part in the freedom struggle. It is most uncharitable to say that the villagers and the village republics have done nothing and that they have brought about the ruination of the country, but it is the other way about. It is the Centre under the British rule which brought about the ruination of the villages which comprise 90 per cent of the population of the whole of India; and has reduced the whole of India to a beggar's condition for their requirements. At that time of course at the Centre we were not there. There were other people. They had some other purpose to serve. Now the people of the country are at the helm of affairs and things should be different. I would say that if we have to improve the economy of the country, if we have to see that the people are happy, we have, not only from the point of ideology but as a practical proposition, to organise the villages on the ancient basis. The village panchayats should be organised on the basis on which they used to work in the past. The economy of the country should be decentralised in that way. It is not possible under the present world for us to give up large scale production of things, but still our country's economy should be decentralised as soon as possible. The sooner we do it, the sooner we give attention to this, the better it will be for us. Though it is not mentioned in the main part of the Constitution and the Constitution is not based on village republics as units of the Centre, in the Directive Principles it is provided that village panchayats should be organised with as much power as possible, and I would request our leaders that this thing should be given effect to as soon as possible in a way as if it were incorporated in the Constitution itself. It is only then, that we shall be able to realise our real independence.

SHRI ALLADI KRISHNASWAMI AYYAR (MADRAS: GENERAL)

...This Assembly deserves to be congratulated on adopting the principle of adult suffrage and it may be stated that never before in the history of the world has such an experiment been so boldly undertaken. The only alternative to adult suffrage was some kind of indirect election based upon village community or local bodies and by constituting them into electoral colleges, the electoral colleges being elected on the basis of adult suffrage. That was not found feasible.

SHRI BALWANT SINHA MEHTA (UNITED STATE OF RAJASTHAN)

...There are some others who allege that we have not maintained any link with our ancient and historic institutions. But I would urge such critics to remember that today we have only a very dim and incomplete picture of our ancient polity. The fact is that we cannot discern it even in its outlines. But even then we have included quite a number of the element of our historic institutions whereby our culture would be adequately protected.

But I concede that there is one thing which appears to be a serious defect in it. If this Constitution had embodied the ideal of Gandhiji in this respect as well, if it had embodied Gandhism, in the full sense of the term, it would have been an ideal one—one which would have been an example and a message to the peoples and nations of the world. The world today, is in a state of turmoil and discord. It is to our Bharat that the nations of the world are looking for securing salvation from this sad state. I, therefore, submit, that it would have been for better for all concerned if our Constitution had embodied Gandhism and more particularly his economic plan and social ideals. But while I regret this omission I realise that a Constitution also changes as the nation goes on marching forward.

...For the general masses, independence and the Constitution can have any significance only if they can provide them with food, raiment, shelter and education. But though there is nothing like this clearly embodied in the Constitution, yet we can by our action work the Constitution in such a way as to provide these things for them, and all their difficulties be soon removed. But this will happen, only when we follow the ideals of Mahatma Gandhi which have been embodied in this. For this we will have to reduce our expenditure too. We will have to level down the standard of living of the people at the top and to raise that of the people at the bottom. Our administration is becoming more and more costly. I think it is the effect of the British rule. Our constitutional machinery would also be quite expensive just because the present set up is so costly. If any attention had been paid to this reform it would have been better. Now too this is for the administration to give it such a shape as to benefit the poor most.

SHRI NANDKISHORE DAS (ORISSA: GENERAL)

...It has got to be admitted however, that in spite of being one of the best paper Constitutions in the world, the Constitution has failed to evoke sufficient enthusiasm in the country and a suspicion lurks in the minds of even the most ardent admirers of the Constitution that something is wrong somewhere and things are not proceeding in the way they should. Some friends have complained that the Constitution is not Gandhian in conception and they have felt bitterly disappointed on that score...A Gandhian Constitution is not to be produced by a mere mechanical process but must grow out of deepest convictions and determination to shape our society strictly and meticulously in conformity with his ideals. This determination is to be found almost nowhere in the country. Hence evolving of a Gandhian Constitution out of non-Gandhian brains and minds is quite out of the question. Gandhiji throughout his life laid repeated emphasis on decentralisation of power, but our Constitution has proceeded on the reverse line, namely over-centralisation.

SARDAR SOCHET SINGH (PATIALA & EAST PUNJAB UNION)

...We cannot afford the luxury of over-decentralisation simply in order to satisfy mere slogans and catchwords...

SHRI T.J.M. WILSON (MADRAS: GENERAL)

...The essence of democracy is the effective participation of the individual in the actual government of the country. The greater and more effective the participation of the individual in the Government, the greater is the democracy, because democracy is still only an ideal which has yet to be reached by humanity. Decentralisation would have done something in that direction, if we had provided for it in our Constitution.

...Reference is made by some to the Village Panchayats, those ancient self-sufficient Indian communities where agriculture and handweaving industry were combined and which have survived centuries of invasion and conquest, and which were uprooted and destroyed by British imperialism, of whose glorious achievement the Governor General in 1834 reported: 'The bones of hand-weavers are bleaching the plains of India.' I am not one of those who look upon these Panchayats as perfect or eternal. But what I say is that this Assembly should have taken the cue from the inherent, native aspect of the Indian society and should have provided for some such machinery, which would have enabled the individual to participate effectively in the government of the country and the authority to flow not from top but from bottom to top. I plead for this participation of the individual, not only because it is essential in the interest of democracy, but also because it alone makes for the strength and efficiency of the Centre, though many people mistakenly think that strength lies in centralisation and a strong Centre. I repeat that democracy of conscious effective citizens is much stronger and more efficient, from any point of view than any other form of government, and the usual talk of weakness of democracy is absolute nonsense.

SHRI KAMALAPATI TRIPATHI (U.P. GENERAL)

...The first fundamental defect of the Constitution appears to be that it is terribly centre-ridden. It appears to me that the polity we have provided for in the Constitution will necessitate the centralisation of all power and authority. I consider this type of centralisation to be defective and dangerous. I think that centralisation will necessarily give rise to tendencies which may prove to be dangerous. Moreover, the leader whose footsteps we have been fortunately following for the last thirty years, gave us a viewpoint, an idea and an ideology. Our Bapu was right when he told us that centralisation, whether in political field or economic field necessarily deprives the masses of their political and economic independence. This was the new idea and new ideology that he handed over to us. He said that true democracy rose not from the top but from the bottom. Power and authority should not be centred at the top but should be distributed among the people at the base of society. Then alone can true democracy be established and then alone can people enjoy freedom. The order that we are going to establish has its head downwards. A tree is being planted with its roots above and its branches spreading downwards but in the political field any order with its base upwards and its top downwards cannot be instrumental in the establishment of true democracy. Centralisation is a terrible curse of the present times. It was the centralisation of production which gave birth to capitalism which in its turn put an end to economic freedom in the world. In the political field the order that came into being on the conclusion of the French Revolution disappeared with the establishment of centralised forms of government and with the centralisation of power and authority. If you look at the present day Russia you will see that although Russia claims to have established the greatest democracy, actually it has not been able to respect democracy. The reason behind it is that a terrible demon in the form of centralised power dominates the people and crushes their individuality and their freedom. You should remember that if you bring about centralisation in India it would lead to the maintenance of rights from a Centre and necessarily that in its turn would involve that power be more and more vested in the centre. Everyone knows that effective power in the hands of the centre can only be based on military strength and the concentration of military power is the sure road leading to the complete destruction of popular rights. This is an historic truth. Our Constitution obviously presents this danger. The circumstances may have compelled us to provide for a centralised form of government but the danger is there and it is necessary to take notice of it. It was with this realisation that Gandhiji had taught us to oppose centralisation. He told us that for the establishment of true democracy the means of production should be of a decentralised nature. The society which is formed on such foundations should also be of a decentralised nature and the Government of this society should also be of a decentralised form. The rights should be in a gradation from below upwards and the government should enjoy only those rights as are bestowed upon it by the people. We have been told that this is a people's Constitution and a common man's Constitution. I humbly submit that it appears to me that this is in the least a common man's Constitution. Power has been centralised in it at the top although it may have well been said in it that power is vested in the people. You should pay attention to it.

Moreover, I find that there is nothing Indian in the Constitution. It appears that the Constitution has been framed only to meet the exigencies of the times.

My other regret is that we have drawn inspiration mainly from foreign Constitutions alone...We have not cared to cast even a glance at the historic spirit and culture of India nor have we taken into consideration the Indian approach to life. While passing this Constitution we did not in the least pay attention to the political philosophy and situation of this ancient country—the oldest among the nations of the world—and which has occupied a prominent place on the stage of History. History is a witness to the great and glorious experiments made by our country in the sphere of politics. But, we turned a blind eye to all these facts of our History...

SHRI DEEP NARAYAN SINHA (BIHAR: GENERAL)

...I now want to say a few words on this Constitution from a common man's point of view. When a common man from the countryside would turn over the pages of this Constitution he would not like to see the beauties of this Constitution or to go very deep into it. He would like to see whether things to meet his necessities have been provided in the Constitution or not. He would like to see whether this Constitution guarantees to him nutritious food, cloth, health and proper education. I would like to point out that the people of the villages and common men would be unable to find such a guarantee in this Constitution...I know it and everyone knows it that India is a country of villages and our people live in villages. I can say that many countries of the world today have a preponderance of cities but my country is a country of villages. Our culture and civilization is one of villages and whatever remains of it has been saved by the grace of villages alone. Let alone giving a dominating position to the villages in the Constitution, they have been given no place whatsoever. No doubt, I have seen that in a small article mention has been made of village panchayats. But it is nothing more than a reference. Our Constitution is silent about the shape that our villages will assume and the place they will occupy in future. The picture of the administration and of the society drawn in the Constitution has no place for the villages. I wanted that in administration and other matters the villages should have been given a predominant place but this has not been done in our Constitution. I consider it a great shortcoming. I think that this is due to the fact that much thought was not given to it. But no doubt it is a basic shortcoming. If we want that our country should make great progress, happiness and peace should soon reign supreme in this land, we will have to give a predominant place to the villages in all matters. We will have to frame all the administrative and other schemes on the basis of the village. If we do not do so we will only add new chapters to our painful history of the past. I want that we should pay attention to this shortcoming in working our Constitution and should formulate all nation-building schemes on the basis of the village.

SHRI BRAJESHWAR PRASAD (BIHAR: GENERAL)

...The essence of the theory of decentralisation is utter distrust of the State. Bakunin and Prince Kropotkin advocated the theory that the State is an evil. It was based on violence and therefore inimical to all that is good and noble in human life. The best State is that which is least governed. May I ask the Members of this House—are they going to build up their State on the basis of these assumptions?

The great Mahatma was an advocate of decentralisation. His doctrine of decentralisation had an integral relation with the concept of *Ram Raj*...It is only in a non-violent society where all the elements of violence have been liquidated that we can achieve the goal of decentralisation. As long as there are warring nations we cannot think in terms of decentralisation. As long as there is economic inequality, the goal of decentralisation will elude our grasp. It is only with the end of the state that we can usher a decentralised society. As long as there is militarism it is not possible to decentralise power to any extent whatsoever.

SHRI BASANTA KUMAR DAS (WEST BENGAL: GENERAL)

...Criticism has been offered that the proposed system of ballot-box might well have been replaced by basing the Government on the village Panchayats as its unit with a view to ensure a truer and more real form of democracy. I must confess that we have not been able to bring about that revolutionary change for a decentralised government. In spite of the teachings of the great apostle of non-violence and truth we have not been able to spiritualise our life and thought and politics in a way adequate to conform to a system of decentralised government. But the revolution has yet to come and come when it will, we will have to change this Constitution.

SHRIMATI G. DURGABAI (MADRAS: GENERAL)

...But ours is a Constitution which is neither a socialist Constitution, or a communist Constitution, or even for the matter of that, a Panchayat Raj Constitution. It is a people's Constitution and a Constitution which gives free and ample scope to the people of India to make experiments in socialism or any other ism which they believe would make this country prosperous and happy. It would have been wrong on the part of the makers of the Constitution to have introduced their own political philosophy, and they have done well in making this Constitution, as I say, a cent per cent people's Constitution, and leaving it at that.

SHRI SATISH CHANDRA SAMANTA (WEST BENGAL: GENERAL)

...I want to say a word about adult franchise. As one who is a villager and a common man, I know the defects of the villagers. Unless we give them opportunities to know what they are, they will never rise. There have been good men and there are still good men in the villages. If real responsibility is given to them, everyone of them will prove his worth and this Constitution can be worked successfully.

I moved an amendment seeking to bring the village panchayats under the Fundamental Rights. They have, however, been brought under the Directive Principles. If the village panchayats are properly constituted as provided in the Directive Principles, the wishes of Mahatma Gandhi could be fulfilled. There are many articles in this Constitution which fulfil the ideals of the Father of the Nation, Mahatma Gandhi. Those ideals should be fulfilled.

SHRI O.V. ALAGESAN (MADRAS: GENERAL)

...There is another criticism that the village as a political unit has not been recognised. I fear that behind the back of this criticism is distrust of adult franchise. What was conceived under the village unit system was that the village voters would be called upon to elect the Panchayats and only the members of the Panchayats were to take part in the elections to the various assemblies, Provincial and Central. But now, it is the village voter himself who will be called upon to weigh the issues before the country and elect his representative, and so he will directly participate in the election. I claim this to be a more progressive arrangement than having village units which elect the electorate indirectly. It has been said that the genius of this country does not find expression in this Constitution. I do not understand what is concretely meant by this charge.

SHRI RAM CHANDRA UPADHYAYA (UNITED STATES OF RAJASTHAN)

...I feel that it would have been better if we had taken six months in the final reading of the Constitution...I think that if we had finished our labours six months hence, our Constitution would have been more complete than what it is.

SHRI RAM CHANDRA GUPTA (U.P. GENERAL)

...I am not satisfied by the criticism that there should have been less of centralisation, and more of decentralisation. I may perhaps agree to this criticism only in a small measure and not more. A strong Central Government is the need of the hour; and I prophesy that the future will tell you that this centralisation was a blessing. All along the ages, and our history bears ample testimony to this fact, the overmastering problem before India has been one of integration, and consolidation and unification. A unitary and highly centralised form of Government is suited to the needs of this country. However, in future if our experience shows that in certain matters some more powers should be given to the units, I feel there would be no difficulty in getting the change effected by the amendment of the Constitution as provided for in Section 368.

SHRI MAHAVIR TYAGI (U.P. GENERAL)

...But the picture from the villager's point of view is dull and dead. I cannot give any argument to convince the villager that from 26th January 1950 his lot will be better. Nor is there anything tangible through which he can better understand this Constitution; because we give the villager nothing but the vote, which we will take from him after two years. That is the only thing we give him. So, I submit that it is only when those who till the soil are enabled to run this Constitution, that they would appreciate it to be their charter of rights and freedom. Otherwise the Constitution is dull. I hope our Indian earth is not so sterile that it will not give birth to a leader who will whisper life into this mould of the Constitution so that it could speak. It would speak...if we could add a proviso to it, as follows:

> Notwithstanding anything contained in this Constitution, no citizen of India shall draw for his personal use either from the public exchequer or from private enterprise a pay, profit or allowance which exceeds the earnings of an average wage earner.

SHRI L. KRISHNASWAMI BHARATHI (MADRAS: GENERAL)

...This Constitution contains some special and redeeming features, but if it is to be judged from the fundamental basis of Gandhian ideology I must confess that it falls far short of it. It is perhaps wrong to say that it has totally ignored Gandhiji's ideology, but I am clearly of the view that the approach of this Constitution to the basic and fundamental principle of Gandhism is half-hearted, halting and hesitant.

...Gandhiji's idea of decentralised democracy has not been given effect to. The Gandhian ideal of economic self-sufficiency in regard to the prime necessities of life, food, and cloth—at the village level has not been incorporated nor emphasised.

SHRI SARANGDHAR DAS (ORISSA STATES)

...Again I am reminded of the speeches of several of the honourable Members who have talked about Gandhiji's plan of democracy. They have regretted that nothing of Gandhiji's principles have been incorporated into the Constitution. I for one do not wish to dwell on that point, but, we talk in one breath of forming a society in which there would be neither high nor low people. That is to say, their incomes would be as far as possible equal.

I disagree with most of my friends, particularly the Hindu friends who expatiate on the existence of the republican system of government i.e. republics in our old Hindu polity. I disagree with them. My contention is that our lower classes, the lower castes of our society, whom we call Harijans, have all along been kept in a depressed condition. Consequently, there was no democracy. If there was democracy, if there was a republic, it was amongst the higher classes, what we call the higher castes. If you look at the Constitution from that point of view I think the removal of untouchability and the introduction of adult franchise are two of the very best elements that have been introduced in this Constitution.

SHRI L.S. BHATKAR (C.P. & BERAR: GENERAL)

...Again in the Constitution that has been passed, not much importance has been given to the peasants and the workers

If that were there, the whole of India will at once come round this Constitution. So long as this is not there, India will not appreciate it because this Constitution will only safeguard the bread of those whose hands are full of bread and not of those whose hands are empty.

VI

A NOTE BY THE CONSTITUTIONAL ADVISER ON THE PLACE OF PANCHAYATS IN INDIA'S CONSTITUTION

May 1948

It may not be easy to work the panchayat idea into the draft Constitution at the present stage. Articles 67(5)(a) and 149(1), which, I believe, embody decisions already taken by the Constituent Assembly provide for direct election to the Lower House, both at the Centre and in the units. These decisions will first have to be reversed if elections are to be indirect, as required by the panchayat plan. Whether this will be practicable I do not know. In all the principal federations and unions of the world, the Lower House is elected by direct election. Even the Upper House or Senate of the United States of America, which was originally indirectly elected, is now (since 1913) directly elected.

The world trend is thus strongly towards direct election for obvious reasons. It may, therefore, not be easy to reverse the decision already arrived at by the Constituent Assembly and to make the indirect elections instead of direct elections obligatory. Perhaps the best course would be so to frame the Constitution as to permit either mode of election, the actual mode to be adopted in any particular case being left to the appropriate legislature. On this view of the matter, I have prepared draft amendments on the following lines:

In article 67(5)(a), for the words 'directly chosen by the voters' and in article 149(1), for the words 'chosen by direct election', substitute the words 'chosen either by the voters themselves or by persons elected by the voters.'

Under this amendment, it will be for the Central legislature under article 290, and for unit legislature under article 291, to prescribe whether the actual mode of election for the Lower House of the Central legislature and of the unit legislatures respectively is to be direct or indirect.

Even if the panchayat plan is to be adopted, its details will have to be carefully worked out for each province and for each Indian State with suitable modifications for towns. Apart from other difficulties, this will take time and rather than delay the passing of the Constitution further it would seem better to relegate these details to auxiliary legislation to be enacted after the Constitution has been passed.

I entirely agree that legislators should have proper qualifications; the difficulty is to formulate them with any kind of precision. It would be easy enough to prescribe an educational standard which all candidates must satisfy; but this may not be considered either necessary or sufficient. The other criteria, namely, social service, character and the *sanyasin* outlook on life, do not lend themselves to precise definition, even if there was agreement about their necessity. Under the draft Constitution, it would be open to the appropriate legislature to prescribe any qualifications in this behalf under articles 290 and 291 and any disqualifications under articles 83(1)(e) and 167(1)(e).

I have been considering the proposition that our Constitution should start from the village and work upward to the provinces and to the Centre. Let us analyse exactly what this means. A Constitution deals with the organs of government, whether executive, legislative or judicial, at various levels and their relations to one another. In federal Constitutions one usually—though not invariably—deals with the Centre and units; for example, the Canadian and the South African Constitutions deal with the Centre and the provinces, but the Constitutions of the USA and of Australia deal mainly with the Centre and hardly with the structure of the States.

It is suggested that the Indian Constitution should deal not merely with the structure of the Centre and of the units but should go down to the village. In other words, is the Indian Constitution not merely to deal with the executive and judicial organs of the Centre and of the provinces, but also to create and deal with similar organs for the district, the subdivision, the *thana*, the *chowkidari* union and the village?

For example, are we to have in the Constitution full specifications of a district executive, a district legislature and a district judiciary? At present we have no district legislature but only certain administrative bodies such as district boards and municipal boards, with a limited power of making by-laws for certain purposes; the district executive is provided for inland revenue Acts or regulations, police Acts and so on; the district judiciary is provided for in Civil Courts Acts, the Criminal Procedure Code and the like. Is it suggested that these or similar provisions should be incorporated in the Constitution itself? I fear that if we do this, not merely for the district but down to the village, the Constitution will be of inordinate length and will be even more rigid than it is at present. It seems to me that while it may be possible to create panchayats and similar bodies to function as electoral colleges for the provincial and Central legislatures it would be impracticable to endow them, or other bodies at the same level, with specific administrative or legislative or judicial functions by provisions inserted in the Constitution itself.

VII

RESOLUTION ON AIMS AND OBJECTS OF FREE INDIA'S CONSTITUTION

Adopted by the Constituent Assembly on January 22, 1947

This Constituent Assembly declares its firm and solemn resolve to proclaim India as an Independent Sovereign Republic and to draw for her future governance a Constitution;

WHEREIN the territories that now comprise British India, the territories that now form the Indian States, and such other parts of India as are outside British India and the States as well as such other territories as are willing to be constituted into the independent Sovereign India, shall be Union of them all; and

WHEREIN the said territories, whether with their present boundaries or with such others as may be determined by the Constituent Assembly and thereafter according to the Law of the Constitution, shall possess and retain the status of autonomous Units, together with residuary powers, and exercise all powers and functions of government and administration, save and except such powers and functions as are vested in or assigned to the Union, or as are inherent or implied in the Union or resulting therefrom; and

WHEREIN all power and authority of the Sovereign Independent India, its constituent parts and organs of government, are derived from the people; and

WHEREIN shall be guaranteed and secured to all the people of India justice, social, economic and political; equality of status, of opportunity, and before the law; freedom of thought, expression, belief, faith, worship, vocation, association and action, subject to law and public morality; and

WHEREIN adequate safeguards shall be provided for minorities, backward and tribal areas, and depressed and other backward classes; and WHEREBY shall be maintained the integrity of the territory of the Republic and its sovereign rights on land, sea and air according to justice and the law of civilised nations; and this ancient land attains its rightful honoured place in the world and make its full and willing contribution to the promotion of world peace and the welfare of mankind.

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Book II

The Madras Panchayat System

A General Assessment

Publisher's Note

The Madras Panchayat System was originally published in two volumes. Vol.I presented an account of the structure of Panchayat Raj as it developed since its inauguration in the latter half of the 19th century. It was authored by Dr S. Saraswathi.

Vol. II is the present work, which is a critical evaluation of the structure as it has emerged in recent years, and also of the actual functioning of Panchayat Raj in Madras state. It was written exclusively by Dharampal.

For obvious reasons, Vol.I is not being reissued as part of the *Collected Writings*. References to 'Volume I' in the present work have not been edited out and should be understood in this context.

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Introduction

Scholars on India hold conflicting opinions about the connotation and origin of the term ‘panchayat’. According to some of them, the term has historically implied more or less self-governing village bodies looking after the manifold civic, administrative and political needs of the citizens in their area. A number of such scholars even go as far as to equate the term ‘panchayat’ with what has been rather dramatically called ‘village republic’ by some of the early British district administrators, including the more well-known Metcalfe. The majority of scholars on India, on the other hand, believe that the term ‘panchayat’ never conveyed any such meaning; and that the function of panchayats was merely to act as judicial bodies in civil or criminal cases at the village or other levels, as well as to settle religious and ritual problems of various kinds.

While a perusal of early (late eighteenth and early nineteenth century) British Indian records leave little doubt that in most parts of India, the village (and perhaps also the towns, etc.) possessed an organised institutional framework which looked after the civic, administrative and political needs of the community, and was endowed with necessary powers and resources to perform the various tasks,[What exactly was the nature of this framework and how it stood in relation to the central state system, how authority and resources were distributed between them are questions that need an enquiry far beyond the scope of this study. This would require a thorough research into the archival and allied material pertaining to the period prior to the establishment of British rule and institutions in various parts of India. The subject is briefly touched upon in the last chapter.] it may yet be true that the word used for such a framework then was not the term ‘panchayat’ but some other term(s). It is possible that the use of the name ‘panchayat’ for such a structure is altogether of British origin. Anyhow, whatever may be the original connotation of the term ‘panchayat’, the present-day statutorily established panchayat bodies in all parts of India, instead of being an inheritance from India's long past, are merely the products of the late nineteenth century British rulers.

During the past eight decades of the panchayat system in Madras, three detailed examinations of the whole system have led to fresh structures and total reorganisation of these bodies. Three major attempts in 1880, 1907 and 1946 are traceable during which abstract ideas or theories have been used to form the basis of these local institutions. The structures established each time were different in their composition, their institutional relationship to the people of their respective areas, their functions and to a lesser extent in their income and expenditure pattern. In each of these three attempts, however, the institutions started with relative freedom; and, in course of time, were hedged in and restricted, ending in an impasse. The growth and decline of the panchayat system in these three phases during a period of eighty years is strikingly similar.

Following the individual district attempts at forming some less formal local bodies for local funds during 1850 and 1880, the governmental authorities of that time in the India office in London, in the Government of India at Calcutta, and in the Presidency of Madras began to think about some form of self-governing institutions at the local levels. Several ideas seem to have led to the same conclusion. The three major concerns were: (i) to help raise additional resources at local levels to do the various things which it was felt were needed to be done either by starting new schemes or pursuing old ones more vigorously, (ii) to create a system of local government which would be relatively independent of the routine governmental machinery and would enable those who operated the system, particularly the collectors of the concerned areas, to undertake desirable tasks in a flexible and freer manner, and (iii) to enable the people of different areas from the village to the district level to have a part or say in doing things for their own individual and social well-being.

The first two of these seem to have evolved from the need of the situation and the experience of the countless British administrators in the previous half a century. The third had much less to do with the administrators either in Madras or in the Imperial Government of India at Calcutta (as it was then called). It was really an extension of Gladstonian ideas and abstractions by the then Viceroy Lord Ripon. It is true that following in the footsteps of Ripon, similar sentiments were also aired by various other persons and committees. Some even expressed a desire to put some life into the fast dying village communities and their councils; or even to recreate such communities where they had seemingly become extinct. Madras certainly did not lag behind in such sentiments. Yet, this Gladstonian idea did not really go very far. It ended with the celebrated Ripon resolution and its incorporation in the statement of principles which preceded every enactment.

As a result of the 1884 legislation, a three tier structure came into being in the Madras Presidency in all districts at the district level, in most talukas at the taluka level, and in a substantial number of villages at the village level. In many areas, the bodies grew in strength; doing a substantial amount of work in terms of the construction and maintenance of roads, the starting and maintenance of schools, hospitals, dispensaries, etc. Their total expenditure (although not very large by present day quantitative standards), was substantial in comparison to the governmental expenditure in those days. Yet a deadlock began to develop in the functioning of these local bodies: either between the local bodies and the presidency government, or between their chairmen (who were officials) and the general membership. In most places, this led to people losing interest in the body; and in some, to the members trying to assert themselves. One form of such assertion, which became somewhat common in the district boards, was to reverse one or other decision of the collector-president, particularly in regard to the punishment meted out by him to any employee of the district board. This became irksome, if not quite intolerable, both to the collector and to the government. In 1905, the government provided for an appeal by the collector-president to the Governor-in-Council against the decisions of the district board. A real impasse in the structure was thus reached.

The Royal Decentralisation Commission of 1907, in addition its primary task of examining the administrative structure of the governments in India (from the subdistrict to the imperial capital) also interested itself in the question of local boards and village panchayats. It obtained a massive testimony, all recorded verbatim and published in ten volumes comprising 45,891 questions, and replies. Volume I, pertaining to the Madras presidency alone, consists of 10,079 questions and answers. Within the terms of its reference, the Commission made a comprehensive assessment of the prevailing situation at different levels and gave its own recommendations to deal with the problems faced.

The years 1909–1920 were the years of wide ranging discussion on the subject of local self-government institutions. The subject seems to have attracted practically everybody who had anything to do with public life. Even persons known for their moderate political views were to be found in the forefront, pleading the case for strengthening these bodies and extending them support. A research into this period may disclose that the published material pertaining to the panchayat idea, and to what such bodies should be and should do, is more voluminous during the decade of 1910–1920 than in any other ten-year period including the years after independence. Two such elaborations, one by Gopal Krishna Gokhale and the other by C.P. Ramaswamy Iyer, are worth reproducing here:

> The three evils of the present system of district administration are its secrecy, its purely bureaucratic character, and its departmental delays. Important questions affecting the interests of the people are considered and decided behind their backs on the mere reports of officials, only final orders being published for general information, as though the people existed simply to obey. The constant references, backwards and forwards, which an excessive multiplication of central departments has necessitated, involve long and vexatious delays even in the disposal of petty matters, and are a fruitful source of irritation and suffering to simple villagers. The Collector is the chief representative of the Executive Government in a district, and to prevent the evils of an uncontrolled exercise of power, he is subjected to a series of checks in his work. The checks are, however, all official; they are all exercised by the members of his own service, of which he himself as a rule, is a fairly senior officer, and though they may serve to prevent gross abuses of power, they are not of much value in promoting efficient administration, and they certainly hamper him largely in the prompt discharge of his duties. What the situation requires is not such official checks exercised from a distance, but some control on the spot on behalf of those who are affected by the administration. For this purpose, I would have in every district, a small council of non-officials, two-thirds of them elected by the non-official members of the district board, and one-third nominated by the Collector. I would make it obligatory on the Collector to consult the council in all important matters, and I would delegate to him large additional powers to be exercised in association with the council, so that ordinary questions affecting the

> administration of the district should be disposed of on the spot without unnecessary reference to higher officials.[1]
>
> Unless the people are trusted to manage local affairs without official control from within, they will never learn adequately to discharge their functions. If this reform does not take place, as well as the much needed reform in the extension of their powers as to the raising of income, the framing of budgets, the creation of appointments, and in short all matters in which they at present work under strict control, still less it is likely that a spirit of initiative or of business-like promptitude will characterise the action of these bodies.[2]

These two views probably sum up several of the expectations and proposals by which these were sought to be realised.

The enactment which came in 1920 was thus an attempt to give some concrete shape to these ideas. To an extent, the beginning was really hopeful. The two legislations as well as the regulations framed under them attempted to assist the realisation of these ideas. No doubt there were several powers reserved for the government under the two Acts. Most of them were, however, delegated to the district or taluka boards or to their presidents. Till 1930, there does not seem to be any actual interference in the day to day functioning of these bodies, or of the modifications they made in the rules, regulations, etc. But concern about the manner of their functioning began to appear in government circles, particularly among those in charge of financial procedures, even as early as 1924. By 1930, such issues really became urgent. Some of the points made during discussions in government circles were that the forms prescribed by the government earlier did not 'provide for sufficient information to check the accuracy of figures entered as (budget) estimates'; that there were no written rules of procedure which described the important stages of preparation and control and sanction of budgets in the offices of the local boards; that the manner of presentation was not laid down; and that the government 'had no means of reasonably satisfying themselves about the reality of a working balance shown on paper.' While pointing these out, it was admitted that however ideal a system might be in theory, its effectiveness depended on the manner and the spirit in which it was worked into practice. Still, it was stressed that the aim of a system was 'equally to minimise all possibilities of human error.' These points were illustrated by the defects noticed in a particular taluk board during that period. The place of the local bodies in the body politic was indicated and the objects in creating them were explicitly stated: '(i) to lighten the task of central authorities in respect to certain fields of activity which from their nature and the enormous size of this country cannot be efficiently exercised by a central organisation; and (ii) to train people in self government.'

These arguments led to the hypothesis that the activities of local bodies would be limited by Acts of the legislature and subject to these; the administrative framework of local boards would be designed with full elasticity regarding their activities in the spheres prescribed, control remaining in the central authority and limited to specific items for preventing the decay of these institutions by financial insolvency.

On such a hypothesis, a 'fiscal system' to 'suit such an organisation' was worked out. The main suggestions made were to provide (i) statutory rules under the rule-making powers of the government; and (ii) a detailed set of departmental instructions 'to guide the presenting etc., of the budget.' These suggestions were considered by the relevant authorities. One of the draft rules prescribed that the 'budgets of local boards and of the village development fund shall become executory only after the approval of the local government.' This was found to contravene Section 116 of the Act and was deleted. A few other rules were added, and from then on, the *rule* of statutory rules and detailed departmental instructions began in the working of the local bodies created under the 1920 Acts.

These steps, alongwith a few additional ones, set the trend and the pace. The rest was simply a logical consequence. What was found to contravene Section 116 of the Act in 1931–32 no longer did so in 1935. In fact things went further. It was then stated that 'the sanction of the budget shall not, by itself, be deemed to authorise the panchayat to incur all the expenditure provided for therein; and where the sanction of the local government or of any other authority is required for incurring any expenditure provision for which has been specifically accorded, it shall be the duty of the panchayat to obtain such sanction before the expenditure is incurred.'

Even this was found to be insufficient. In early 1939, the Inspector of Municipal Councils faced a serious problem. It made him write to the government. The letter is worth quoting:

> In this connection I invite the attention of Government to the concluding portion of my letter of 20.3.1939 wherein I have promised to submit a further report about the callous way in which Panchayats spend their funds under provisions of the Local Board Act. Rule 1-A(2) of Schedule V to the Act provides that subject to such rules as the local government may make the panchayat shall have power to make such provisions as it thinks fit for carrying out the requirements of the village in respect of certain specific matters, like plantation of avenues, control of village buildings, extension of village sites, village protection, improvement of agricultural stock, promotion of cottage industries, etc. Cases have come to notice where panchayats have been indulging in wasteful expenditure like maintenance of breeding bulls, encouragement of cottage industries, by maintaining bee-hive foundries, making provision for the extension of village sites, etc., without considering their financial position and quite oblivious to the fact that panchayats have got to improve their sanitation and afford facilities for drinking water, and maintain their roads properly which are prime necessities of any village. Though law provides that Government may make rules in this behalf still the framing of a rule is not a pre-condition precedent to incurring of expenditure in respect of these authorised items as contemplated in rule 1-A(2) of Schedule V to the Act and I think it is desirable that the inspector should be authorised to control such wasteful expenditure in the interests of the Panchayat administration. I, therefore, suggest to Government the desirability of framing a rule to the effect that if panchayats would spend any money on the items specified in rule 1-A(2) of Schedule V, the previous sanction of the inspector should be obtained in the matter. I have already made a reference to the Government about the propriety of making a rule for controlling the establishment of village libraries and reading rooms and I am awaiting orders of the government in the matter. I suggest that Government may be pleased to consider the above suggestion and pass early orders in the matter.

As a result, two government orders were issued: the first, on 31st August, 1939; and the second, some months later, on

2nd February 1940. The first related to a particular case of a panchayat keeping a bull, instructing the concerned panchayat to give up the keeping of the breeding bull and asking the district board to whom the bull belonged to take it back from the panchayat. The second order amended the schedule to the Act and stated that 'no panchayat shall incur any expenditure on any of the matters specified in sub rule (2) of rule 1-A of Schedule V of the Madras Local Board Act, 1920 without the previous approval in writing of the Inspector of Municipal Councils and Local Boards or of the Deputy Inspector of Municipal Councils and Local Boards concerned.' About the same time, a rule for controlling the establishment of village libraries and reading rooms was also issued by the government. Thus, under the rule-making authority, each activity of the panchayat came to be controlled by the government.

Similar alterations were made in other matters. The technical sanctioning powers of the bodies were first made over to their technical staff; but later, the staff was itself taken out of the service of the local boards. Whatever little staff still stayed in the service of these bodies gradually began to be bound not by the conduct rules as framed by these bodies but by rules statutorily proclaimed. Even the travelling and daily allowance rules did not escape attention. By about 1944, the procedural and operational structure which, with some recent refinements exists today under the Madras Panchayats Act, 1958, had come into being.

The period 1946 to 1958, and thereafter, in practically every detail is comparable to the period 1907–1920. The same type of concern to promote local bodies was expressed; similar discussions took place; similar commissions or committees were appointed. But while the local boards of 1920 had started with a comparatively cleaner slate, the panchayat bodies of 1958 were loaded with complexities of procedure. The aim in 1958 was to achieve each and everything with the same old operational and procedural devices. The Act of 1958 also created a three-tier structure, this time with more status and resources at the middle tier. It also provided for larger quantitative resources than had obtained immediately before. The most outstanding achievement of the 1958 period was the establishment of village panchayats to cover every village and hamlet. Till 1958, only about half the area of the state had village panchayats. In the 1930s, the area coverage was about one-third of the composite presidency.

Yet even the financial resources after 1958 were proportionately no more than those which obtained in the two decades 1920 to 1940. In fact, in comparison to total state expenditure, the present resources are somewhat below those of the previous period. Till about 1940, the total expenditure of local bodies in the Madras presidency had ranged from 4 to 6 crores of rupees, while the expenditure of the presidency government moved between 16 and 20 crores of rupees. Since 1961, when the present structure had fully come into being, the expenditure is around Rs.28 to Rs.30 crores a year; while the state expenditure has grown to nearly Rs.195 crores in 1964–65. This certainly does not imply that these bodies are languishing for lack of money. This is only to illustrate the trend.

The present volume is an attempt to evaluate the system and functioning of panchayat raj in Madras State, mainly from the information and impressions gathered during extensive tours of several districts, undertaken during the study and from a study in depth of certain selected panchayats and panchayat unions. The total impact of the system in terms of the investments made, the programmes taken up, the human resources involved and the institutional machinery at work has been assessed in a general way. Some crucial questions (like corruption, the extent of real 'self-government', the role of panchayats in the village communities) have been discussed with a view to identifying the problems and suggesting a way out to bridge the existing gap between the theory and practice of panchayat raj in the Madras State.

Dharampal

Notes

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1. Gopal Krishna Gokhale, quoted in, *The Development of Indian Polity* by M. Ramchandra Rao, p. 291, Madras.

2. C.P. Ramaswamy Iyer, *Presidential Address of the Malabar-District Conference*, 1917.

I

STATE-WIDE DIMENSIONS OF PANCHAYAT RAJ

The impact of the present panchayat system in terms of its total physical achievements must be estimated at least roughly, before embarking on a critical survey of either the totality or some parts of it. The place of panchayat institutions, and the men associated in running them must be determined in the context of the general socio-political-administrative structure of the state in order to understand the full import of the new system. This leads to an examination of the physical magnitude of the existence and functioning of the apparatus.

ADMINISTRATIVE ARRANGEMENTS

The state is delimited into twenty-one development districts. In all revenue districts, except the district of Madras, district development councils (one each in the Nilgiris, Kanyakumari and Chingleput and two each in other districts), have been constituted.

A total of 374 panchayat unions and 12,895 panchayats have been constituted in the state. Their size and population are not uniform. The number of panchayat unions range from four in the Nilgiris to twenty-nine in South Salem. The number of panchayat unions comprised in each development district is given in *Table 1*.

Approximately, the average size of a panchayat union is 100 square miles, and the population 75,000. But the area and population of the different panchayat unions are widely at variance. The biggest panchayat union, covering an area of 1,818.85 square miles, is in East Coimbatore development district; and the smallest, extending to an area of 16.48 square miles, is in West Coimbatore development district. Fifteen panchayat unions cover a population of more than one lakh each, and four have less than 30,000. Villivakkam panchayat union, situated about ten

TABLE 1

miles from the city of Madras, has the largest population of 1,47,737, and extends to 62.05 square miles. Evidently, the high density of population here is due to its nearness to the state capital. The number of panchayats in a union also varies. There is just one panchayat in Yercaud union in Salem district; the maximum number is in Utteramerur union in Chingleput district which covers seventy-three panchayats.

In terms of general development and also of importance, there is a wide disparity between the unions. The existence of a telegraph office and a railway station may to a considerable extent be taken as indicators for general economic importance of an area. Out of the 374 unions, the headquarters of less than one-half of the number have railway stations and also have a telegraph office. There are a few union headquarters situated at considerable distance from railway stations or main bus routes. In some unions, there are no petrol pumps in the area and the union jeep makes a return trip of forty to fifty miles just to fill in petrol. But practically all unions have secondary schools in their area; many of them even have five to six. Union headquarters are generally situated in taluka and subdivision towns, but quite a few of them are located in some remote corner of the union area which it is expected to serve.

The wide disparity in the number of village panchayats and villages included in each district is too obvious to be overlooked.

Table 2

District	*Population in thousands*	*Area in square miles*	*No.of Panchayat Unions**	*No.of Town Panchayats**	*No. of Village Panchayats*	*No. of villages*
Madras	1,729	49	—	—	—	—
Chingleput	2,196	3,031	27	27	1,192	2.309
North Arcot	3,146	4,942	36	27	1,541	2,055
South Arcot	3,048	4,204	34	22	1,682	2,255
Salem	3,804	7,028	51	53	1,352	1,715
Coimbatore	3,557	6,018	41	58	846	976
The Nilgiris	409	954	4	16	46	54
Thanjavur	3,246	3,740	36	31	1,568	2,686
Madurai	3,211	4,910	34	43	857	1,143
Tiruchirapalli	3,190	5,514	39	33	1,235	1,555
Ramanathapuram	2,422	4,849	32	25	1,285	1,728
Tirunelveli	2,730	4,419	31	58	852	1,016
Kanyakumari	997	643	9	46	—	65

*Latest figures are given in the statement on the panchayat elections of 1965 at the end of the Chapter.

Table 3

Name of the development district	*Village panchayats coterminus with revenue villages*			*Village panchayats for less than one revenue village*			*Village panchayats for more than one revenue village*		
	Population less than 1000	Population 1000 to 3000	Population more than 3000	Population less than 1000	Population 1000 to 3000	Population more than 3000	Population less than 1000	Population 1000 to 3000	Population more than 3000
North Vellore	129	290	74	28	61	2	18	75	26
South Vellore	260	270	29	8	7	—	57	161	21
East Thanjavur	167	351	48	7	14	5	19	136	26
West Thanjavur	121	276	43	15	27	3	67	182	32
East Ramanathapuram	72	154	18	103	121	14	113	223	14
West Ramanathapuram	59	103	24	80	60	13	22	56	7
East Coimbatore	49	121	103	2	8	12	5	29	43
West Coimbatore	30	212	127	3	13	15	4	7	13

TABLE 4

Neither the size of the district, nor that of the population, nor even the number of revenue villages provide any basis for the number of village and town panchayats constituted in a district. *Table 2* may show at a glance the general picture of panchayats in the state.

The Panchayat Act of 1958 permits the constitution of a panchayat for any local area comprising one revenue village or more than one revenue village or just a part of a revenue village. Thus, the jurisdiction of a panchayat does not always coincide with the jurisdiction of the revenue village. There are many villages falling under the jurisdiction of more than one village panchayat. *Table 3* may illustrate the incoherence of revenue borders and panchayat borders.

Since the establishment of the unions, eleven townships have been constituted by the government (*Table 4).* In these areas, the functions and powers exercised by the panchayats have been transferred to the township committees.[1]

Many town panchayats have also been constituted as municipalities since the promulgation of the Act, and during 1965 itself, nine panchayats have been declared as municipalities. Besides, the entire area covered by the Singanallur panchayat union in Tirunelveli district has been constituted into a municipality.

FINANCIAL ARRANGEMENTS

As significant as their physical characteristics is the total finances involved in the operation of the panchayat system. As constituted, the importance of these bodies depends on the amount of resources they handle.

The amount of land revenue in an area depends on a variety of factors: the fertility of the soil, the relative general development of the area, distance from urban areas, historical background, etc. It has been explained in volume I that the government had statutorily adopted a policy of fiscal classification of the panchayat unions into four categories, and had decided to give varying rates of certain grants to the unions in each category. The classification is applied for determining the 'local cess matching grant' and the 'local education grant'. The classification is based on the land revenue demand per capita of the union, excluding town panchayats in them, and the idea is to give more financial assistance to poorer areas than the relatively prosperous ones.

Table 5 shows the development districtwise fiscal classification of panchayat unions in the state with reference to village land revenue per capita.[2]

Doubts were expressed about the validity of the fiscal classification and some collectors pointed out that most of the villages in the state would fall under 'B' category. A suggestion was also made for making road grants uniform at 50 per cent. Other suggestions made in connection with formulating fiscal classification were: (i) constituting periodical or permanent panchayat finance corporation, (ii) assigning land revenue to panchayat unions at Rs.2 per capita in addition to the grants decided by the Panchayat Finance Commission, (iii) assigning local cess in relation to per standard acre and surcharge at a fixed percentage of local cess and (iv) adopting the yield-per-acre for each crop in the panchayat union as the basis for fiscal classification.[3]

The question of reclassification was again raised in January 1963, but again the government deferred consideration of the

TABLE 5

question as comprehensive amendments to the Madras Panchayats Act, 1958 were stated to be under formulation. 'The provisional classification ordered will have to be made use till orders on the fiscal quinquennial reclassification of blocks are issued after processing comprehensive amending legislation,'[4] it said. The government, however, did not take any decision as it felt that the matter would become relevant only for formulating the Fourth Plan Schematic Budget. But it appears that this had not been done while the new schematic budget was being prepared.

It was brought to the notice of the government that there were particular villages in 'A' or 'B' class unions which were poorer compared to the rest of the villages in the union. The government thereupon stated that the general economic status of the block was alone taken into consideration in determining the fiscal classification, and that it had no objection against a panchayat union spending a larger portion on such villages from the allotment it received from the government on the basis of the classification. 'There will have to be an internal adjustment within the block without affecting the government grant to the block as a whole,' it said.

The fiscal classification of blocks is a provincial arrangement. The grouping of blocks as Stage I and Stage II was originally made under the Community Development scheme to denote the date of the setting up of the block and its crossing from one phase to another of the planned programmes. Though it continues, it is only relevant for getting grants from the Government of India. The number of these Stage I and Stage II type of blocks in the districts is given in *Table 6*.

The resources of these bodies may be classified as (i) transfers made by the state government to them, and (ii) resources directly raised by them. The former may further be distinguished as taxes and duties levied on their behalf under the provisions of the statute on the rates fixed or recommended by the government, and grants made both generally and for specific purposes. The resources levied and collected directly by these bodies belong mostly to village and town panchayats. A statement furnished by the Rural Development and Local Administration Department of the Government of Madras (*Table 7A* & *7B*), shows the financial position of these bodies.

TABLE 6

TABLE 7A: Statement I—Transfers made by State Government to Local Bodies (Panchayats and Panchayat Unions)

Table 7B: STATEMENT II—RESOURCES DIRECTLY COLLECTED BY PANCHAYAT BODIES

The amount due to the village panchayats from the house, vehicle and profession taxes directly levied by them (though much less than the income from the single item of surcharge on stamp duty specifically levied in the name of the panchayats) has shown some increase in the past two or three years. Yet the best performance in 1963–64 recorded in Tiruchi district still shows failure to collect 33 per cent of the taxes due to the panchayats. In many districts, the balance to be collected was much more than the actual collections in a year, even more than double the collections. There were reports about harassment of villagers in the collection of these taxes. A question was raised about this in the state legislature in 1962, when the government informed that the properties of twelve defaulters were attached and later released.[5] *Table 8* provides districtwise details of collections.

Among the various tax income due to village and town panchayats, the largest is derived from surcharge on stamp duty, which has uniformly since 1960–61 yielded around 40 per cent of their income from all taxes. The profession tax seems to be the least important item which at its maximum in 1963–64 had yielded only Rs.5.20 lakhs out of the total income from all taxes, viz., Rs.587.15 lakhs. *Table 9* may illustrate the relative importance of the various taxes the proceeds of which accrue to the panchayats.

TABLE 8: Collection and Balance of House, Vehicle and Profession Tax

(For the Year 1961–62)

(For the Year 1962–63)

(For the Year 1962–63)

The statute has empowered the panchayats to levy a tax at their own discretion on agricultural land for specific purposes. It is interesting to note that (though this provision is much hedged in and regulated and cumbersome to apply), in the district of Coimbatore, this enabling clause has been very widely utilised as is shown in the following statements, (*Tables 10* and *11*), furnished by the Rural Department and Local Administration Department of the Government of Madras.

Of the ordinary expenditure of panchayat unions, education constitutes nearly one-half of the total. This may be seen from the statement of expenditure of panchayat unions during the year 1964–65 (*Table 12*) furnished by the Rural Development and Local Administration Department of the Government of Madras.

The above seems to be the normal pattern of expenditure since 1961–62 in all the local bodies including the municipalities; this pattern of expenditure is uniform in all of them since 1961–62 (see *Table 13*).

The staff working in the panchayat unions in different capacities are of four types: the community development staff, the regular secretarial staff of the union, the field staff and the technical personnel. In the village panchayats, besides the executive

TABLE 9

officers and clerks, village officers participate in panchayat activities. The total personnel working in panchayats and panchayat unions can be classified as given in *Table 14*.

The maintenance of the elaborate system of panchayat administration involves a direction and supervision by the government at various levels, the state secretariat, the collectorate

TABLE 10

and the sub-divisional levels.(A note on the organisational set-up of this panchayat system is given at the end of this chapter.) In addition, the training of various officials and non-officials and other propaganda work connected with the panchayat administration involves considerable expenditure by the State. The total is also gradually increasing from about Rs.100 lakhs in 1961–62 to 135 lakhs in 1964–65. More than Rs.11 lakhs are allotted for the Rural Development and Local Administration Department, about Rs.3 lakhs to the maintenance of the office of the Additional Development Commissioner. One of the biggest items of expenditure is the Local Fund Audit for which more than Rs.22 lakhs are allotted in the Budget Estimate for 1965–66. This is double the amount spent in the year 1961–62. Similarly, the panchayat development allowances to the village officers have grown from about Rs.15 lakhs in 1961–62 to Rs.26 lakhs in 1965–66.

ACHIEVEMENTS

It was stated by the government in the state legislature that the priorities in panchayat development were drinking water supply, link roads and schools for every village.[6] A review of the achievements was made by the Minister for Local Administration

TABLE 11: Statement showing the maximum rates of tax levied on agricultural lands under section 119 (3) of the Madras Panchayats Act, 1958 per acre per half year in the Panchayats in the different Development Districts of the State.

in his ‘Review of Panchayat Development in Madras State 1964–65’.[7] The panchayat unions had at that time three to four years existence. In the major fields, the achievements claimed then were as follows:

TABLE 12: Expenditure during 1964–65
Panchayat Unions in the State

Agriculture

By October 31, 1964, in a period of forty-three months, out of the Third Plan period of sixty months, the expenditure on agriculture through the panchayat unions was Rs.2.31 crores out of the five year budget of Rs.4.96 crores. Proportionate expenditure on panchayat plantations, equipment to panchayats and cooperatives, promotion of composting by individuals, agricultural equipment for *grama sevaks* and purchase of demonstration equipment at block headquarters were fully utilised or even exceeded. A total of 25,950 acres was brought under panchayat plantations during the period. Chingleput and Thanjavur districts, East Ramanathapuram and North Salem development districts had plantations totalling over 2,500 acres each. Expenditure on other items was much below the schematic allocation for the period. For *grama sahayak* service, Rs.11,56,000 were utilised out of the total five year allocation of Rs.1,12,50,000, i.e., about 10 per cent of the allocation. The situation with regard to 'laying demonstration plots' or 'running demonstration farms'

TABLE 13: Expenditure incurred by Local Bodies

was only slightly better. *Table 15* gives a detailed breakdown of the allocation and expenditure.

Animal Husbandry

The pattern of expenditure incurred on activities pertaining to animal husbandry through the panchayat unions was similar: the expenditure of forty-two months (upto 30th September, 1964) amounting to Rs.22,79,451. The total five year allocation for animal husbandry through the unions is over Rs. one crore. Out of this, Rs.4 lakhs is towards the government contribution to the building of some twenty-five veterinary dispensaries. Table 16 gives the quantitative achievements during the period and the expenditure incurred.

Fishery Programme

By 31st October 1964, 183 fish nurseries had been started in thirty-three panchayat unions in Thanjavur district and

TABLE 14

TABLE 15: A Statement showing the various schemes implemented (upto 31st October 1964) under the Agricultural Programme, and the amounts set apart under each item

TABLE 16: Statement showing the expenditure incurred and physical targets achieved under Animal Husbandry Programme (upto 30th September 1964)

in forty-six unions in the rest of the state. The programme was yet to begin in the other seventy unions which had also been selected for starting fish nurseries.

Minor Irrigation

Under minor irrigation by October 1964, 21,700 tanks having a total ayacut of 8,51,000 acres had been transferred to the panchayat unions and in 1963–64 an amount of Rs.28,59,000 had been incurred on their upkeep.

Education

In the field of education in 1962–63, the panchayat unions, besides transferring of the local cess to the education fund, had contributed Rs.64 lakhs towards elementary education from their own general funds. This contribution rose to Rs.109 lakhs in 1963–64, and was expected to go up to Rs.136 lakhs in 1964–65.

Environmental sanitation scheme had been started in 100 schools, at a cost of Rs.2,00,000. Pre-primary education had been taken up in 730 schools in twenty-one unions (one in each development district in the state) and the integrated Child Welfare Development Project in fifteen panchayats of the Poonamallee panchayat union near Madras City. 14,000 radio sets had been supplied to the panchayats at a subsidy of Rs.180 for the first set in a panchayat and at a subsidy of Rs.100 for an additional set for a hamlet in the panchayat area. The Panchayat Radio Maintenance Organisation, especially set up for the purpose in September 1961, did the maintenance of these radio sets at an annual charge of Rs.20 from a panchayat, the cost of new components (with a 10 per cent surcharge) to be paid by the panchayat additionally.

There were 10,310 *Mathar Sangams* (target being thirty per union) and 14,00,000 volunteers on the rolls of the Village Volunteer Force. A total of Rs.1,45,000 had also been donated by the members of the Village Volunteer Force.

Two development blocks, Kolli Hills and Yercaud, both in the Salem district, had, besides the normal panchayat union resources, additional grants of Rs.10 lakhs each from the Government of India for a period of five years. The Rural Works Projects for utilisation of rural manpower sponsored by the Government of India operated in fifty-five panchayat union areas, and the three centrally suggested and assisted pilot projects for rural industries had received their sanction by the end of 1963.

Regarding taxation by the panchayat unions, practically all the unions had levied a local cess surcharge. The rates decided by the unions varied from five paisa to a rupee of every rupee of land revenue collected in the area. This was to be matched by the government by a grant varying from 75 per cent to 150 per cent of the amount collected in the area of a union. The average rate of the levy would work out at 31 paisa, and as a result of such interest in the unions in levying this tax, the government grant was raised from Rs.85,24,000 in 1961–62 to an estimated Rs.1,70,00,000 in 1965–66. Similarly, 329 panchayat unions had levied surcharge on entertainment and show tax in their area from which an estimated income of Rs.57,00,000 was expected in 1964–65.

LINKS WITH THE LEGISLATURE

The members of the state legislature have shown interest and expressed concern over the functioning of the panchayat bodies. Through questions on the floor of the House about specific or general issues, and through its Committee on Subordinate Legislation which scrutinises all statutory rules issued by the various executive departments of the Madras government under the relevant stipulation in the several State Acts. The power of scrutiny and revision of the statutory rules relating to the panchayat system is statutorily entrusted in the state legislature.

Many questions have been raised by members of the legislative assembly and the council from time to time on matters relating to panchayats. They deal with diverse topics—elections, members, presidents, functions and powers of the bodies, finance, administration, etc., and in its replies, the government has at times provided important statistical information, factual details of incidents and has stated its own policy and programmes.

Through the Committee on Subordinate Legislation, the state legislature has been scrutinising the statutory rules relating to the Madras Panchayats Act 1958 and the District Development Council Act 1958.[8] During the past four-five years, the Committee, while approving most of the statutory rules without recommending any change, has commented on several. In its ninth report (March 1965) commenting on the proviso which directed the president of the district development council to prepare the report of the district and submit it to the government, it pointed out the omission or ignoring of the district development council. The Committee recommended that before submission to the government, the report 'should be laid down' before the district development council. In an earlier report (March 1964), it commented on the procedure of too much concurrent inspectorial jurisdiction exercised by several officers. Commenting on the question of administrative reports of panchayats and panchayat union councils, the Committee had the following to say in its ninth report (March 1965):

> In the above order (*G.O. [Rt.] 2160* R.D. & L.A. 10th October 1963), Government have issued rules regarding preparation of administration reports...The particulars referred to in Section 55 (1) of the Act have been prescribed in the present rules which have been published in the Gazette on

22nd January 1964. Since the first batch of Panchayat Union Councils were constituted in October 1960 and the last batch in 1961 the department was requested to state whether the above Panchayat Union Councils had submitted their administrative report for the years previous to the issue of the rules.

The Department has furnished the following reply:

The Administration Reports of the Panchayat Union Councils were received for the year 1961–62 from the Collectors of Madurai and Coimbatore, and for the year 1962–63 from the Collectors of Madurai and Ramanathapuram and Salem...In *G.O. (Ms.) 2160* R.D. & L.A., dated 10th October

> 1963, rules relating to the preparation and submission of administration report of Panchayat Unions and Panchayats have been issued. It has been considered further instructions may be issued to the Collectors as to the form in which they should prepare the general report on the administration of Panchayat Unions and Panchayats in the district and that based on these reports a state level report may be prepared. Necessary action in this, regard is being taken separately.

The Committee, while noting the above reply, drew the attention of the government to its previous recommendations viz. that rules under Acts should be framed simultaneously with or immediately after commencement of an Act. The Committee was also of the opinion that in the present case, the issue of the rules had been unduly delayed.

Commenting further on the above, the Committee inferred:

> ...so obviously the Panchayat Union Councils could not have adhered to the provisions of law strictly so far as submission of administration reports to the Collector was concerned.

In an earlier report of 1961–62, while commenting in a notification (issued under *G.O. 1677* L.A., of 8th October 1960) the Committee expressed the opinion that 'for purposes of convenience, the question of remission of amounts below Rs.50 should be decided by the commissioner subject to ratification by the panchayat union council and above Rs.50 should be decided by the panchayat union council and their decision should be final.' Commenting on a similar provision with regard to the panchayats (Notification No. 45, Rule 6 in *G.O. [Ms] 1248* L.A., 26th April 1961) it observed, 'the rule provides that when any single item of tax, fee or other amount to be written off as irrecoverable exceeds Rs.50, the sanction of R.D.O. shall be obtained. The Committee recommends that the limit of Rs.50 be raised to Rs.100 since the panchayats should be vested with more powers.' It recommended that this should apply equally to the provision in notification 51(2)C.

In yet another report in 1961–62, it advocated that the members, presidents and vice-presidents of panchayats and outsiders appointed as members of panchayat committees (Referred to in Notification 16, *G.O. [Ms] 1248* L.A., 26th April 1961) should be 'entitled to at least one second class fare by railway or steamer journey.'

In its reports, the Committee has again and again drawn the attention of the government about the delay, at times as long as six months, in the placing of the rules before the legislature. In its 17th report of 1961–62, it also recommended ‘that all the rules issued under Madras Panchayats Act 1958 be consolidated and arranged subject-wise for easy reference.’ No such consolidated book of statutory rules seems to have been prepared till now (July 1965).

Besides the Committee on Subordinate Legislation, there is another committee of the legislature ‘Legislative Committee on Public Assurances’ to keep watch on the fulfillment of the various assurances given in the legislature by the government from time to time. One of the questions which arose out of the proceedings of this committee was about the location of the headquarters of a particular panchayat union. The matter was later closed by the committee itself.

JUDICIAL PROCESSES

At times, matters pertaining to the panchayat system reach courts of law. Mostly, this is in the form of writ petitions for stay of elections, etc., by individuals who have some grievance. Some of these cases drag on for considerable time. At times, the result of a no-confidence motion is challenged by a writ petition. One such petition was allowed by the High Court as the meeting where the no-confidence motion was passed was held in a place different from the one given in the notice of the meeting. In another case relating to a no-confidence motion, the ground for appeal to the High Court was that the meeting was invalid as there was an elaborate debate (not permitted by the relevant rules) at the time of the passing of the no-confidence resolution. This case was still pending at the end of 1964 when the recent elections were held.[9]

TRAINING

Late in 1955, the Tamilnadu Panchayat Union (TNPU) had come out with a scheme of training panchayat members and sought the assistance of the government in its implementation. The scheme was considered at the government level several times but for some unspecified reason was deferred from time to time. Again in August 1958, the TNPU requested the sanction of the government for conducting training camps for members of the panchayats. Though this was welcomed by the government, the sanction was not granted immediately. Finally, a scheme of training panchayat presidents and vice-presidents was approved in October 1961 to be run by the Tamilnadu Panchayat Union.[10] As a first step in implementing this scheme, four seminars were held in Madras in December 1961 to orient (i) eleven official instructors (one per district) of the grade of divisional panchayat officers; and (ii) those of the presidents of Taluk Association of Panchayats who were available for this task.

The training, started in April 1962, continued for about a year. The total expenditure on this training of panchayat presidents and vice-presidents amounted approximately to Rs.3,70,844. Of this, an expenditure of about Rs.50,000 went towards the pay and allowance of the staff. The study camps (as this training was termed) ordinarily lasted for two to three days for each group and was conducted under the supervision of a special officer for training in the R.D. & L.A. department. A total of 21,735 presidents and vice-presidents of panchayats (80 per cent of the total) had formally undergone the training by April 1963.

Besides the above study camps, there are regular training arrangements for the various categories of staff employed at the panchayat unions. The training to the *grama sevaks* is imparted at the seven Rural Extension Training Centres and the training course lasts for about two years. Some of these centres have also Home Science wings attached to them which provide a one-year training to incumbents for the posts of *grama sevikas*. Each of the *grama sevak* and the *grama sevika* trainee receives a monthly stipend of Rs.40 and Rs.45 respectively during the period of training.

The extension officer (cooperation) is expected to undergo a three and a half months' training at a training centre at Tirupati (run by Central Agriculture Ministry and the Reserve Bank); the extension officer (education) a training of six months at a Social Education Organisers' Training Centre; and the *mukhya sevika* a training of ten and a half months. The extension officer (agriculture) undergoes a refresher course at Agricultural College, Coimbatore; the extension officer (animal husbandry) a similar refresher course at Veterinary College, Madras. The health personnel receive an eight weeks' training as a team at a centre at Poonamallee (run by the Central Ministry of Health) and the block development officer receives a fifteen-day training in village industries, some training in 'loan work' and office procedure and if a non-revenue person a week's survey training by a district surveyor.

There are also orientation courses for selected block development officers and extension officers at the Bhavanisagar (Mysore) or Hyderabad Orientation and Training Centres for a duration of twenty-two days or forty-five days. The revenue divisional officers also undergo a five-day preliminary study of development programmes at Gandhigram and another five-day study in rural industries at Kallupatti.

In-service training for one to three days is also provided for grama sevaks and grama sevikas. There is another 'full three-day' training of village leaders in batches of fifty.

There are no district training centres in Madras State for members of panchayat bodies on the lines recommended by the Central Ministry of Community Development and Cooperation. At the beginning of 1965, 41 per cent of the block development officers in the state were untrained. The number of untrained social education officers was also sizable while the shortages amongst the *grama sevaks* and *grama sevikas* was 17 per cent and 4 per cent respectively. Amongst the extension officers the shortages in 1964 were of the order of 10 per cent.

ROLE OF CONSULTATIVE COMMITTEES ON PANCHAYAT DEVELOPMENT AND THE MADRAS STATE UNION OF PANCHAYATS

Three Consultative Committees were constituted by the government in 1964 to consider and deliberate on the several problems arising out of the working of the present panchayat system. They are composed of the chairmen of the concerned standing committees of each district development council. Other members include collectors, state level officials and some non-officials. These committees serve as fora of discussion on the various problems and shortcomings of the system and its operation. Ordinarily the committees are presided over by the Chief Minister. The equivalent of these committees, at the official administrative level, is the annual conference of collectors, where the working of the panchayat system forms a major item of the agenda.

The other state level body is the Madras State Union of Panchayats (better known as the Tamilnadu Panchayat Union), which though non-statutory and non-official in character, interests itself in the working of the panchayat system. The union holds a state conference every two years. The two recent conferences were held in Tiruchirappalli in 1962 and in Madras city in July 1964. During its meeting in 1964 the conference discussed various issues and adopted several resolutions.

The 1962 conference of the Tamilnadu Panchayat Union seemed at that time to have produced substantial results. Its resolutions were considered by the government and some of these were later discussed between a deputation of the TNPU, and the then Chief Secretary in September 1962. Some of the suggestions of the TNPU were accepted at this meeting. But many of the questions raised in 1962 were still being processed by the state government as late as the end of 1964.

The TNPU has Taluka Panchayat Unions as its affiliate institutional members. The Tamilnadu Panchayat Union itself was accorded recognition by the government in November 1952 and the panchayats were permitted to become its members, to pay Rs.5 annually as membership fee, and also if they wished to subscribe to its journal. Earlier to the formation of this organisation, a similar body perhaps more limited to the district boards, functioned in the Madras Presidency and performed similar tasks for its affiliates. This body seems to have disappeared about the time the district boards were abolished in 1957.

Several district bodies with names like ‘Association of Panchayat Union Council Chairmen’ have come into being in different districts during the past year or two. Some of the recent decisions of the government appear to have accelerated their formation and made them more active. However, so far they seem to have limited themselves to the consideration of relatively more personal and individual status issues.

NATURE OF REQUESTS FROM PANCHAYAT BODIES

The legal and administrative regulations governing the panchayat administration have been described in Volume I which show that little is left for independent judgment or discretion of panchayat bodies in any matter. Several instances can be cited to show how absolute is governmental control. Even matters of purely panchayat or of village concern have often to be referred to the government. Some of the queries raised by these bodies and requests made by them and the attitude of the government to them may illustrate the present nature of the term ‘panchayat raj’:

(i) A curious instance which comes through is of a panchayat in Madurai district which resigned *en-bloc* in protest and was later dissolved. The story as it emerges is as under:[11]

> The Collector of Madurai District 'A' in his letter of 31.12.1961 reported that the president, vice-president and members of panchayat 'X' in Taluk 'A' have tendered their resignation in the form of a resolution on 21.12.1960, and ever since the panchayat was not functioning and that it was reported by the divisional panchayat officer 'A', that the reasons for tendering resignation are: that the authorities concerned failed to take action on the resolution of the panchayat No. 27, dated 27.11.1960 regarding illicit distillation and gambling and the panchayat could only make representations and that it was not correct on the part of the president, vice-president and members of the panchayat to have resigned their offices for these reasons in the form of a resolution and stop functioning. All the members have resigned their offices on 21.12.1960 and the panchayat has not been functioning from that date. The Collector, therefore, considered that the panchayat 'X' was persistently making default in performing the duties imposed on it by law and its administration was at standstill.
>
> In view of the above report, the panchayat 'X' was called upon to show cause why it should not be dissolved for one year from 1.6.1962. The notice was duly served on 3.5.1962, but no reply was received from the panchayat within the time stipulated. The panchayat has not availed of the opportunity which is given to it. The Government have, therefore, issued their notification dissolving the panchayat for one year from 1.8.1962.
>
> The Panchayat Union Commissioner concerned has been asked to take necessary action for the administration of the panchayat during the period of its dissolution.

A question about this panchayat was raised in the legislature seeking information. The government confirmed the *en-bloc* resignation of the panchayat in the form of a resolution on 21st December 1960 and the reason furnished by the panchayat was that action was not taken by the authorities concerned on its resolution (No. 27, dated 27th November 1960) regarding illicit distillation and gambling in the panchayat area.[12]

(ii) A co-opted member was removed from membership by a panchayat union council as it was alleged that the member had worked for two days in some government project and had received about Rs.5 as wages for this work, this disqualifying him from membership. The member contended that he had only worked as a volunteer and it was later established that though he was paid remuneration, it was only out of contingent funds. It was stated by the government authorities that those paid from contingent funds could not be classed as government servants. The government reinstated the member and informed the panchayat union councils that they did not have power to remove members and that in each such case, the government had to be referred to.[13]

(iii) The travelling allowance of a panchayat union chairman for attending a meeting of the district development council was time-barred as his earlier bill was considered invalid since it was not submitted in the newly 'revised forms' for such bills. This delay was condoned by the government enabling the chairman to receive the amount due to him.[14]

(iv) A panchayat union chairman had in the course of his official duty made some visits to the site of works undertaken in his union area. For these journeys, he had been paid by the union an amount of Rs.17.50. This payment was objected to by the audit authorities as they claimed that travelling allowance by the chairman for visit to work sites was not specifically covered by earlier government instructions. After the matter was represented to it, the government decided to drop the objection.[15]

(v) After considering their enquiries and requests, the government permitted the local bodies to spend up to Rs.50 per portrait of Mahatma Gandhi and the President of India. Portraits of eminent chairmen, members, presidents, etc., could be installed by the bodies at private cost. Installation of the portrait of any other national leader at private cost was to be permitted by the government after the consent of the concerned leader had been obtained.[16]

(vi) Agreeing to requests and superseding a previous order, the government permitted local bodies to incur expenditure on presentation of address to a minister of the state or the centre up to Rs.20 in a panchayat and Rs.50 in a panchayat union or a municipality. Utilisation of the amount towards entertainment or purchase of a casket was prohibited.[17] Another order superseding an earlier instruction issued in 1928 permitted the local bodies, excluding the panchayats, an expenditure of Rs.200 on presentation of address to the Governor of Madras. The amount as in the case of ministers was not to be utilised on entertainment or purchase of caskets.[18]

(vii) In reply to queries, the local bodies were informed that sanction for the purchase and erection of busts of national leaders in their area would ordinarily be withheld except in an exceptional case.[19]

(viii) A particular panchayat body was permitted to incur an expenditure of Rs.200 for presenting an address to a minister of the central government.[20]

(ix) Another panchayat body was permitted to incur an expenditure of Rs.600 for replacing a damaged portrait already installed in one of its buildings.[21]

(x) A panchayat union council in Tirunelveli district had incurred an expenditure of Rs.26 on printing the agenda for a meeting of the council in October 1962. Soon after this, the government prohibited printing of any such agenda. As the bill towards this printing was held up a request was made on the council's behalf by the collector bringing this point of earlier printing to the notice of the government. Thereupon, the amount of Rs.26 was sanctioned by the government as a special case.[22]

(xi) In 1960, a reference arose regarding the sanction of some loan for some *gramdan* villages in Madurai district. The matter was finally taken up in May 1962. Still nothing happened till March 1963. A little later, the commissioner of the panchayat union, in which these villages were comprised, informed the government that Takkavi loans for these villages had by then begun to be available. The matter was dropped at this stage.[23]

(xii) The collectors were asked to see that a set of four panchayat union maps showing the provision of minimum basic amenities: (a) communications, (b) elementary schools and drinking water facilities, (c) medical facilities, and (d) minor irrigation, were prepared and displayed in each panchayat union and district office.[24] One of the collectors reported seeking permission of an expenditure up to Rs.80 for each set of four maps. After some enquiries from other districts and the concerned collector, his request was refused because no similar request had come from any other district.

(xiii) In a panchayat union council at a meeting in November 1961, presumably presided by the sub-collector of the area, a local cess surcharge of 50 paise per rupee of land revenue was decided on the basis of an agenda item (prepared by the commissioner) which had suggested a surcharge of 55 paise. At a special meeting a month later, the previous resolution was unanimously cancelled, the attendance in this meeting being twenty-seven out of a total membership of thirty-two. The meeting was presided by the sub-collector in his capacity of ex-officio chairman. Information regarding this cancellation was sent to the additional development commissioner, the sub-collector and the *tehsildar*. The action was considered to be whimsical by the government. However, the government did not cancel the resolutions as it was realised that amendment of Section 116 of the Madras Panchayats Act alone could stop the carrying out of such a resolution. The collectors and the revenue divisional officers were consequently asked to persuade the panchayat union councils not to cancel such resolutions during the same financial year.[25]

(xiv) In December 1961, a panchayat union council adopted a resolution expressing its protest against the government's instructions on the application of rule 27 of Madras travelling allowances rules with regard to the payment of travelling allowance to members, vice-chairmen and chairmen of the panchayat union councils. The council contended that the application of this rule reduced the position of an elected representative to much less than that of a lower division clerk paid from council funds, inasmuch as the clerk was entitled to 11 paise per mile while members of the council received 6½ paise per mile for similar journeys. It asked the government to drop this rule. The matter was considered by the government but the order which followed stated that 'the government have carefully examined the above suggestion but are unable to accept it.'[26]

(xv) In early 1961 a collector wrote to the government requesting the sanction of a sum of Rs.50 towards incurring expenses for refreshments, etc., at such meeting of the district development council which met in two sessions on the same day. The proposal after some discussion and hesitation was agreed to by the state government.[27]

Nearly one year lapses between the taking of a policy decision by the government and its communication to the concerned authorities in the form of orders on any matter of state-wide import in which decision lies with the state level authorities. In one instance, this time gap extended to eight years. The matter concerned the communication of the type-design of elementary and higher elementary school buildings and the relevant permitted estimates which were worked out in 1950 but communicated in 1958. Even in matters which are considered to be very urgent (like agricultural development), a minimum of one year seems necessary between formulation and communication of decisions to concerned authorities. In its fifth meeting on 3rd January 1964, the State Agricultural Advisory Board suggested the formation of agricultural production committees at the panchayat union level. The order instructing the formation of such committees 'to meet every month and make suggestions to solve the problem confronting agricultural development in the block area' with the block development officer, extension officers (agriculture and animal husbandry) and three practical agriculturists as members was communicated to the councils only some ten months later in November 1964.[28] A somewhat different instance is in regard to lands made over to panchayats. This matter was discussed and a recommendation made in May 1961 at a state conference of district collectors. Proceedings of this conference were communicated a year later in May 1962. Six months after this, the collectors were asked to give their comments and to send detailed lists regarding unassessed waste lands in their respective districts. The information requested was received from most of the districts during December 1962 to October 1963. In December 1963, a question was raised at the state level as to ‘why should Government call for a list of unassessed waste land. This will be a big task and for what use’? Thereafter, the remaining two districts which had not sent the information were informed not to send this information any more and the file of over a thousand pages was closed.[29]

SPECIAL PROVISIONS FOR KANYAKUMARI AND CERTAIN OTHER AREAS

The nine panchayat unions and the forty-six panchayats in the district of Kanyakumari, the panchayat union of Shencottah in the district of Tirunelveli, and the Yercaud panchayat union in Salem district are in their legal framework and operation different from those in the rest of the state. Many of the unions in the district of Tirunelveli and the unions and panchayats in the district of the Nilgiris also provide some exception to the general operational pattern of the system. Tirunelveli district for decades has had a higher literacy rate compared to the state average, and also has an overwhelming number of publicly managed educational institutions as compared with their number in other districts. The direct load of supervising and administering elementary and higher elementary schools on most of the panchayat unions in this district is therefore much less. The percentage of the school-going population enrolled in schools is the highest in Kanyakumari district, higher than in the city of Madras.

Tirunelveli is just a little behind Madras city, but much ahead of the other districts in this regard. Probably, this factor is to some extent responsible for certain variations noticed in the working of the panchayat system in these two districts. The district of the Nilgiris being wholly mountainous and having a different ethnic population is perhaps also quite distinctive in the working of the panchayat institutions particularly at the village level. However, because of the limitation of the study sample panchayat unions and panchayats to the districts of Thanjavur, Ramanathapuram, Coimbatore and North Arcot, no study of the impact of these historical and physical factors on has been attempted. An attempt has only been made to understand the specific differences in Kanyakumari due to the different statutory and administrative stipulations, and to find out if the lesser direct educational load on the panchayat unions has led to any major variations in functioning or emphasis on other activities and programmes.

The district of Kanyakumari and the area of the Shencottah panchayat union became part of the Madras State only in 1956. Their former association with Kerala has given them certain distinctive administrative and organisational features. Their physical situation and other socio-cultural factors have further emphasised this distinctiveness.

The legal framework has curiously named all the panchayats in Kanyakumari as 'town' panchayats. Though many of them have some towns up to a population of 5,000 within their areas, in most essential matters, they are altogether rural, with most of their citizens engaged in agriculture and other rural occupations. It is true that, compared to most village panchayats in the rest of the Madras State, they are larger both in area and population. The two largest in area are Azhakiapandipuram (with 82.35 square miles) and Ponmana-Aruvikara (with 63.743 square miles—40 square miles of which are forest area). The largest in population is Colachal, with a population of 34,765. In most others, the population ranges between 10,000 and 20,000, and the area covered is three to fifteen square miles. Twenty to thirty hamlets are included generally in each panchayat. Out of a total district population of 9,96,915, the rural population is 7,07,275.

Having named these as town panchayats, to treat them equitably with the other village panchayats in the rest of the state, other exceptions had to be made. One such is the house tax matching grant paid to them by the government which is not available to town panchayats elsewhere in the state.

Other major differences are at the panchayat union level. Firstly, the council of the panchayat union is quite differently constituted. In contrast to other unions in the state, all members of the panchayats in a union area, and not only the panchayat presidents, are members of the panchayat union council. This enables all the elected persons in an area to take part in the deliberations of both the panchayat and the respective union. Since the total number of such elected persons is smaller (fifty to sixty in each union) this arrangement has become feasible.

Yet some other unions in the state like Vellakoil in the district of Coimbatore which has only eleven panchayats and most of them with twenty to thirty hamlets each do not enjoy this proviso.

Secondly, all elementary and higher elementary education and the management of the school meal programme in

Kanyakumari district is outside the jurisdiction of the panchayat unions and the panchayats. Government schools which are predominant are directly managed by the education department. The financial allocation to publicly managed schools are also allotted to them through the department of education and not by the panchayat unions as in other areas of the state. This means a much smaller total budget—a total income of Rs.2,88,271 against an expenditure of Rs.2,95,994 (omitting the opening and closing balances) for instance in the Agasteeswaram panchayat union in 1964–65—as contrasted to budgets of Rs.6 to 8 lakhs in other unions of the state. Whether this leads to the union giving greater attention to other activities and helps the social education organiser who is free of the job of administering panchayat union schools in attending more to the work of social education is not traceable from the records or the pattern of expenditure. According to those who run these bodies there is really no difference which is easily discernible. This applies equally to those panchayat unions in Tirunelveli where the number of panchayat union schools are comparatively few. In fact, the chairmen and staff of the panchayat unions and the governmental personnel at the district level in Tirunelveli who were asked about this thought the question irrelevant and were almost certain that such variation could make little difference to the implementation of other programmes and activities.

Thirdly, the panchayat unions in Kanyakumari (also the unions in the district of Nilgiris) are all fiscally classified as 'D'. This enables them to receive a larger proportionate share of such grants as local surcharge matching grant and reduces their share of public contribution for items in the works programme. The land revenue both in Kanyakumari and the Nilgiris being very low, the unions there have become eligible for these concessions.

The meetings of the panchayat union councils in Kanyakumari, however, appear to be more lively. It may be partly due to the fact that all the elected panchayat members in the area participate in the council and bring in several view points on any issue under discussion. This arrangement probably also accounts for a larger concern with general problems of the union as a whole, a concern which a council constituted only of the panchayat presidents cannot show. Any president who is a solitary representative of his area will invariably be more concerned with what he could get from the union for his area than with issues of general well being. It is also possible that the liveliness in the panchayat union councils in Kanyakumari is more attributable to reasons of wide-spread education, greater cultural continuity and homogeneity and other historical factors.

There are variations in the working of the panchayats also. The majority of the panchayats are housed in their own buildings, most of them have large budgets, around Rs. one lakh each in 1964–65, thus giving a per capita of Rs.4 to 7. Their establishment costs about Rs.10,000 yearly; nearly 30 per cent to 50 per cent of such expenditure is on collection establishment. An item much neglected elsewhere but which appears to be well attended in the panchayats of Kanyakumari district is the panchayat contribution to the school meals programme. Whether this is due to their own volition or to the larger pressures of the education department, which as mentioned above itself manages all government schools and would therefore be more accountable for the running of the school meal programme in them, is difficult to say. According to the statements of income and expenditure, the eight panchayats in which this enquiry was made have contributed sums varying from Rs.1,020 to Rs.5,976 in 1964–65 to the cost of school meals in their areas.

Some of the panchayats in the district have panchayat plantations. But in many of them which have large areas the effort is infinitesimal. This may be true of many other programmes as well as of the participation and interest of the different hamlets in the existence and work of the panchayat.

Many *grama sevaks* in the panchayat unions of Kanyakumari have been provided with a government built residence for which they pay a rent. The *grama sevak* is also expected to provide room in this residence for the agricultural implements and other stock under his charge. Many of these structures are built in rather isolated places away from the busy parts of the villages. Such structures are therefore regarded as unsafe and otherwise unsuitable. Besides, these quarters are so small that a *grama sevak* who has to live there with his family and has to keep his implements has literally to squeeze himself in. Insufficient accommodation and unsuitable location result in the structures remaining vacant while the *grama sevak* pays rent not only for the private place where he actually lives but for this vacant place in his name. A way out of this ridiculous and somewhat tragic situation must be found.

The functioning of the panchayat unions and the panchayats in the district of Kanyakumari and what they today do and what they will soon have to engage in if they wish to stay in the stream of life and the district's socio-economic educational and cultural situation has important lessons for the rest of the Madras State and in days to come for most of the country. The level of education, the density of population, and a merging of small towns with agricultural areas, though today a peculiarity of Kanyakumari would, in a few years, become a common experience in most other districts and panchayat union areas. Such a situation would require an altogether different handling. One would have to provide both for agricultural and urban needs through the same institutions. Furthermore, the maintenance of amenities, roads, bridges, street lighting, public buildings, wells, tanks, drains etc., would be for some time to come a constantly increasing and more and more money consuming activity. Today the panchayats in Kanyakumari do try to attend to most of these latter needs. Yet, the larger need of agriculture and of providing or suggesting employment to those who have to look for other jobs, does not seem to have dawned on those who direct or run these bodies. In agriculture, the usual budgeting, provisioning etc., obtain. Most of this has little relevance to large areas of Kanyakumari, with the consequence that a large part of the allocation cannot either be utilised or is used for things thoroughly unsuitable for these areas. The employment problem is as yet no one's business. Nonetheless, the very survival of these bodies and whatever little they do in terms of amenities will depend on their being enabled and encouraged to attend to these two problems in the manner which suits their particular situation.

PANCHAYAT ELECTIONS 1965

After some postponement, elections to all the panchayats were for the first time simultaneously held throughout the state in January 1965 for direct election of members of panchayats; and, after a three-month postponement, for election of presidents of panchayats and chairmen of panchayat union councils in April that year.

Much unanimity is evident from the election results. Out of a total of 1,17,629 members who had to be elected to the 12,454 villages and 424 town panchayats, 47,636 (40.5 per cent) were elected without contest. Lack of contest was even more marked with regard to the election of panchayat presidents. Not counting Coimbatore district, for which these results are not readily available, among the other eleven districts out of a total 12,027 presidents who were to be elected 7,753 (64.2 per cent) were elected without any contest.* For the panchayat union chairmanship, the contest was keener; only eighty one (22 per cent) out of 367 were returned with a unanimous vote. The proportion of the sitting chairmen returned is 38 per cent (140 out of 367). Fifteen of the chairmen also happened to be members of the state legislature having initially been elected as members and presidents of particular panchayats. It is not known how many members of the legislature in all are members of the village and town panchayats.

Out of the 12,878 panchayat presidents, 523 belong to the scheduled castes and 57 to scheduled tribes. It is again not known how many of these scheduled tribe presidents contested or were elected as chairmen of panchayat union councils. *Tables 17* and *18* give more detailed district-wise information on the panchayat elections.

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*Uncontested elections in the state of Madras are nothing new. The following table pertaining to the period 1920–35 may be of interest in this connection.

	Union Boards		Taluk Boards		District Boards	
	Uncontested returns	Contested returns	Uncontested returns	Contested returns	Uncontested returns	Contested returns
1925–26	1,414	959	151	666	NK†	NK†
1926–27	474	212	114	203	NK†	NK†
1931–32	150	48	37	12	NK†	NK†
1932–22	3,177	2,076	1,799	1,958	443	676

†Not known. Perhaps no elections were held for District Boards during these years.

ORGANISATIONAL SETUP OF THE PANCHAYAT DEVELOPMENT ADMINISTRATION IN MADRAS STATE*

(*Received from the Rural Development and Local Administration Department, Fort St. George, Madras–9 as per letter no. 138916 P1/64–I, 16th July 1964.)

(a) State Level

At the state level, the subject 'Panchayat Development' is dealt with by the Rural Development and Local Administration Department of the secretariat. The Minister for Local Administration is in charge of the Community Development and Panchayat Development. The Finance Secretary is the Development Commissioner and is in overall charge of the Planning and Development for the state. The Development Commissioner does not directly deal with the Community Development and Panchayat Development. There is a Secretary to Government and the Additional Development Commissioner, who is also the Additional Secretary to Government. The Additional Development Commissioner acts both as a head of a department and also performs the secretariat functions in his capacity as Additional Secretary to Government. The Rural Development and Local Administration Department at the secretariat is divided into the Programme Branch, Accounts and Finance Branch, Establishment Branch and Municipal Administration Branch. Four Deputy Secretaries are directly in charge of these programmes—two of them directly dealing with the Programme and Accounts. These officers are also state touring officers. The other Deputy Secretaries are the Deputy Secretary in charge of Establishment and Municipal Administration and the Deputy Secretary (Special) is in charge of Rules and Legislation relating to Panchayat Raj.

2. With a view to advise the government for the successful implementation of the Panchayat Administration in this state, the government have constituted the following Panchayat Development Consultative Committees:

i) Panchayat Development Consultative Committee on Administration and Works;

ii) Panchayat Development Consultative Committee on Production Programme;

iii) Panchayat Development Consultative Committee on Welfare Services.

These committees meet twice a year. The composition and functions of these committees are explained in the proceedings No. 797, Rural Development & Local Administration, dated 31–3–1962. (copy enclosed).

(b) District Level

At the district level, the district collector who functions as *primus inter pares* constitutes the keystone of the entire edifice. He coordinates and supervises the entire work relating to the Community Development and Panchayat Development. He is the head of the team consisting of the district heads of development departments. For developmental purpose, heavy districts have been divided into two each. For each development district, there is a district development council. The district development council is in charge of the implementation of the developmental schemes. The collector of the district is the chairman of the district development council. The personal assistant to the collector (Panchayat Development) is the secretary of the district development council. The district officers of the development department are members of the district development council.

(c) Block Level

Each development block covers a population ranging 65,000 to 75,000 and is in charge of the block development officers. With the implementation of the Madras Panchayats Act, 1958, a panchayat union had been constituted for each block. The block development officers are designated as panchayat union commissioners-cum-block development officers. The panchayat union commissioner is primarily responsible to the panchayat union council for the successful implementation of the programme and acts as the leader of the team of officers attached to the block.

Notes

1. Section 4 of the Panchayats Act, 1958.
2. *G.O. 613*, R.D. & L.A., 3rd March 1961. The classification of the unions in Kanyakumari and the Nilgiris districts is not included; because of the low land revenue per capita all the unions in these two districts were later classed in 'D' category.
3. *G.O. 2167*, R.D. & L.A., 11th October 1963.
4. *Memo. 843183/F1/62-5*, R.D. & L.A., 11th January 1963.
5. *G.O. (RT) 1740*, R.D. & L.A., 12th September 1962.
6. *G.O. 2274 (RT)*, R.D. & L.A., 19th November 1962.
7. Appendix I reproduces the chart indicating the physical achievements as shown in the Review.
8. The scrutiny by the Committee on Subordinate Legislation is to take the following into consideration: (i) whether it (the concerned set of rules) is in accord with the general objects of the Act pursuant to which it is made; (ii) Whether it contains matter which in the opinion of the Committee should more properly be dealt with in an Act of legislative assembly; (iii) whether it imposes taxation; (iv) whether it directly or indirectly bars the jurisdiction of the law court; (v) whether it gives retrospective effect to any of the provision in respect of which the Act does not expressly give any such power; (vi) whether it involves expenditure from the Consolidated Fund or the Public Revenues; (vii) whether it appears to make some unusual or unexpected use of the powers conferred by the Act pursuant to which it is made; (viii) whether there appears to have been unjustifiable delay in the publication or laying of it before the legislature; (ix) whether for any reasons its form or support calls for any elucidation.

   The legislative department prepares memoranda on the "Rules", "Sub-Rules", etc., and places such "memoranda" along with the Rules before the Committee for its consideration. Any clarifications which are received from the concerned department are also placed before the Committee, and if the Committee wishes it may itself call for clarification or summon the departmental officer to appear before it to clarify the points raised by it. Draft reports based on the observations of the Committee on the Rules scrutinised are prepared in the legislative department and placed before the Committee from time to time for approval. On approval the report of the Committee is printed and presented to the legislature. Thereafter copies are forwarded to concerned departments for taking action on the recommendations of the Committee. A watch on the action taken is kept by the legislative department which presents a consolidated report showing the action taken on the recommendations of each report and places it before the Committee. After consideration, a separate report is presented to the legislature by the Committee.

   The Committee on Subordinate Legislation was first constituted in 1955. During 1957–58 (second Assembly), it considered 972 sets of Statutory Rules in 90 sittings and presented 18 reports to the Legislature. It made 538 recommendations on the 972 sets of Rules considered by it. Of these, 238 were accepted by Government, 62 not pursued by the Committee and the remaining 38 were pending action at the end of this period. During the third Assembly (beginning April 1962), it had made 10 reports to the legislature by March 1965.

9. *G.O. (Ms.) 31*, R.D. & L.A., 4th January 1964.
10. *G.O. (Ms.) 2876*, R.D. & L.A., 30th October 1961.
11. *G.O. (Rt.) 2456*, R.D. & L.A., 1st December 1962.
12. *G.O. (Routine) 2456*, R.D. & L.A., 1st December 1962.
13. *G.O. (Ms.) 1394*, R.D. & L.A., 1st July 1963.
14. *G.O. (Ms.) 370*, R.D. & L.A., 18th February 1964.15. *G.O. (Ms.) 387*, R.D. & L.A.,
15. *G.O. (Ms.) 387*, R.D. & L.A.., 19th February 1964 (See also *G.O, Ms. 2901* R.D. & L.A., 1st November 1961).
16. *G.O. (Ms.) 17* L.A., 3rd January 1963.
17. *G.O. (Ms.) 1384*, L.A., 17th May 1961.
18. *G.O. (Ms.) 540*, L.A., 25th February 1961.
19. *G.O. (Ms.) 1915* L.A., 2nd December 1960.
20. *G.O. (Rt.) 1740*, R.D. & L.A., 12th September 1962.
21. *G.O. (Rt.) 1520*, R.D, & L.A., 14th August 1962.
22. *G.O. (Rt.) 959* R.D. & L.A., 14th May 1963.
23. *G.O. (Rt.) 1580*, R.D. & L.A., 7th August 1963.
24. *G.O. (Rt.) 1397* R.D. & L.A., 18th May 1961.
25. *G.O. (Ms.) 2175* R.D. & L.A., 5th October 1962.
26. *G.O. (Ms.) 2175*, R.D. & L.A., 5th October 1962.
27. *G.O. (Ms.) 935*, R.D. & L.A, 28th March 1961.
28. *G.O. (Ms.) 2415*, R.D. & L.A., 19th November 1964.
29. *G.O. (Rt.) 2604*, R.D. & L.A., 17th December 1963.

II

A SAMPLE SURVEY OF PANCHAYAT BODIES

The districts of Thanjavur, Ramanathapuram, Coimbatore and North Arcot were selected for the purpose of an intensive study. The study was to be done in three ways: *first*, through interviews with randomly selected villagers, elected representatives and officials in selected panchayat unions and panchayats; *second*, through observation of the working of these bodies for a period of about six months by trained research investigators; and *third,* by a study of the records of these bodies. For several reasons, some of these tasks could not be accomplished in the manner they were intended. The interviewing had to be done in a hurry and on the basis of schedules which, at the time they were finalised, did not have the benefit of better factual knowledge of the system. Systematic observation had to be omitted and the study of field records has remained rather uneven, partly because some of the senior research personnel attending to field study did not know Tamil and partly because there was little detailed record on the proceedings of any meeting and on the manner of arriving at decisions by the panchayat bodies. The proceedings and minutes of meetings have very little to disclose beyond indicating that an item on the agenda was passed or postponed or (rarely) negatived.

The twelve panchayat unions which were selected on the basis of random sampling were (1) Thiruvaiyuru, (2) Needamangalam, (3) Muthupet in the Thanjavur district, (4) Sakkottai, (5) Rajasingamangalam, (6) Tiruppuvanam in the district of Ramanathapuram, (7) Pollachi, (8) Vellakoil, (9) Modakkurichi in the Coimbatore district, (10) Kandili, (11) Wandiwash and (12) Cheyyar in the district of North Arcot. 36 panchayats, three in each of these panchayat unions, were again randomly selected. Five of these happened to be town panchayats—all the three in Sakkottai, one in Tiruppuvanam and one in Cheyyar. Some basic data about these panchayats, their area, population, date of first formation of the panchayat board, their total income and expenditure is given in *Table 41.*

I

In each panchayat, twenty persons were selected randomly from the electoral rolls of the panchayat area, thus making a total of 720 persons (among whom 100 belonged to the five town panchayats) and they were interviewed on the basis of a common schedule. Seven members from each panchayat, including the panchayat president, and another eight to ten from each panchayat union council in addition to the three panchayat presidents selected at the panchayat level itself, the twelve panchayat union chairmen from the four districts in their capacity as members of the district development councils, totalling in all 372 elected representatives, were further interviewed on the basis of another schedule. A third group interviewed on the basis of a third schedule comprised 264 officials, three each from the 36 panchayats, about ten each from the twelve panchayat unions and the remaining 34 from the level of the district which included five district collectors. The results of the interview have initially run into over 200 separate tables grouped under some 130 detailed heads. The respondents amongst the elected and the officials were overwhelmingly male while amongst the villagers women accounted for some 35 per cent of the total (253 out of 717).

VIEWS OF THE INTERVIEWED RESPONDENTS

The general tone of the interview results is one of relative acceptance of what prevails. It is true that a substantial number of persons (particularly from amongst the villagers, some time running into 40 per cent to 50 per cent of the sample), do not respond at all to many questions. That may partly be accounted for by defects in the interview technique and procedure, and may be due partly to ignorance or indifference amongst such respondents. It is difficult to say which contributed more to such non-response. But, those who responded do not show any marked variation in terms of factual information or opinion on most questions which were asked. Practically, all village respondents know of the existence of panchayats; most members of the panchayat union council know the number of village panchayats in their particular panchayat union; and most of the villagers and the elected specify road construction and maintenance, drinking water projects, building and running of schools as the primary activities which these bodies have undertaken and of which they are quite conscious. There is some little difference on this point in the reply of panchayat union and district based officials, who additionally give primary place to activities like agriculture. Any great controversy or unrest or ambition which there may be in the minds of those who are connected with these bodies does not come through the interviews. It is possible that the structuring of the questions and the manner of their administering may itself have barred the recording of any such response.

The only striking thing which does emerge is about the rather marked difference which the urban based (i.e. at the panchayat union and district) official displays with regard to his image of rural society in contrast to that held by persons, both village officials and the ordinary people at the village level. Most of it comes out in response to questions about elections.

People at the village level seem to place a higher significance and to show a greater interest in general elections than elections for the panchayats. On the contrary, the urban based officials and even the panchayat union chairmen think that the villagers have more interest and get much more excited about elections to the panchayat. This response was a few months before the recent (January 1965) panchayat elections in Madras, and it is possible that the response after the elections could have been different. The various responses are indicated in *Tables 19–23*.

Table 19: (VILLAGE RESPONDENTS)

Question: In what elections have you voted?

Table 20: (VILLAGE RESPONDENTS)

QUESTION: FOR WHICH OF THESE ELECTIONS HAVE YOU FELT GREATER EXCITEMENT?

*N.R.: No response. N.A.: Not available D.K.: Don’t know.

Table 21: (ELECTED REPRESENTATIVES)

Question: Which of these elections, Panchayat or General Elections, do you think create greater excitement among the people of the village?

Table 22: (ELECTED REPRESENTATIVES)

Question: What about your own feeling?

Table 23; (OFFICIALS)

Question: Which of these elections—Panchayat, General Election—creates greater excitement among rural people?

According to the people at the village level, practically everyone votes of his own volition, and choices have little to do with questions of caste, political affiliation, status, factional interest, etc. But, according to the city based officials, and surprisingly the chairmen of the panchayat union councils interviewed, these latter were the major influences. Perhaps this is to be expected, and individuals in both the groups are being equally honest in giving their particular version of the situation as each comprehends it. Only it points out the wide difference in the comprehension of those who are inside the village society and those who are either mere onlookers or are trying to fit it to some preconceived model.

Table 24: (VILLAGE RESPONDENTS)

Question: For what caste of candidate have you voted in the panchayat elections?

Table 25: (VILLAGE RESPONDENTS)

Question: Please recollect and tell me if any candidate for the panchayat elections was supported in any way by any political party.

Table 26: (VILLAGE RESPONDENTS)

Question: Whose advice would you seek before casting vote?

Table 27: (ELECTED REPRESENTATIVES)

Question: Was the election to your panchayat/panchayat union conducted on party lines? For instance, did any candidate invoke party slogans in his favour?

Table 28: (ELECTED REPRESENTATIVES)

Question: And what about caste? Did any candidate invoke caste slogans in his favour?

Table 29: (OFFICIALS)

Question: Did any candidate invoke party slogans or get party help during the panchayat election?

About the management of schools by panchayat union council, most villagers and even officials (including 17 teachers out of the 32 teachers in the officials' sample) feel that attendance in schools is now far better. Very few mention any decline in the management of schools under the panchayat union councils.

Table 30: (VILLAGE RESPONDENTS)

Question: Have you seen or heard of any change for the better or worse in the system of education since the past three or four years?

Table 31: (VILLAGE RESPONDENTS)

Question: Have you heard about or seen any changes for better or worse in the system of education since the past three or four years? If yes, what changes have you noticed?

Table 32: (ELECTED REPRESENTATIVES)

Question: Have you seen or heard of any change for the better or worse in the system of education since the past three or four years?

The school meals programme is known to most village respondents. Very few think it is not going well; most of them affirm that public contributions are being received. Curiously enough, few have indicated their having made any voluntary contribution for any public purpose while responding to another question. 20 out of 32 school teachers and seven out of 13 block development officers however mention about the unsatisfactory position in this regard.

Table 35: (VILLAGERS)

Question: Does the panchayat provide mid-day meal to school children?

Table 36: (VILLAGERS)

Question: What about people's contribution, Do you think it is forthcoming satisfactorily?

Table 37: (VILLAGERS)

Question: Apart from the taxes and fees, have you at any time given any other contribution to the panchayat?

Table 38: (OFFICIALS)

Question: Does the contribution from the people come satisfactorily?

There is some grievance amongst the elected and the officials about the keeping of panchayat funds with the panchayat unions and the financial relationships between the two. The response however is somewhat subdued, as the question itself did not engage into much of a probe.

Table 39: (ELECTED REPRESENTATIVES)

Question: Do you think that the village panchayat fund should be maintained by the village panchayat themselves or by the block? Please state your reason for either case?

About relationships between the officials and non-officials in the panchayat system, practically all the elected and official respondents find them fine and cordial, while many feel they are excellent. Only a few respondents seem to differ from such universally held views.

II

What now follows in this chapter is based on a perusal of records in the offices of panchayats, panchayat unions and the district development councils. The research unit was able to cover only a small part of the records and that too in certain areas only. Absence of any reference to information on a particular point from a specific area does not at all imply the absence of such records. It only means non-perusal of those records, or, in a few instances, their unavailability to the research team.

THE SAMPLE PANCHAYATS

As can be seen from *Table 41*, a little less than one-half of the thirty-one village panchayats are of recent formation in the years 1958–60. A few others were created between 1950 and 1958 and there are several which are of longer standing. Two of them, both quite small in area and population, from the Cheyyar and Wandiwash panchayat unions are more than forty years old. All the five town panchayats have had a fairly long life ranging from forty to eighty years. The area of sample village panchayats varies from one to eighteen square miles and the population from 700–6,000. Several of these are single village panchayats but many have as many as twenty small and large hamlets.

There is much variation among these panchayats with regard to annual income and expenditure. From as little as Rs.1,500 in one or two panchayats, it amounted to over Rs.20,000 in several in 1963–64. The per capita panchayat income in the several panchayats varies between Rs.1.50 to Rs.10 in 1963–64. Majority of them, however, have a per capita income of three to five rupees. The expenditure pattern shows still greater variation. It goes down to as low as 50 paisa per capita in two or three panchayats. One actually is having an income of around Rs.4 per capita but either for some reason desires to save its resources for future use or is just unable to put them to any use in the present. The per capita expenditure is as high as

Rs.10 in some panchayats in 1963–64. Generally, the expenditure depends on the income but in a few panchayats the deficit is met out of past balances. It may be generally true in most parts of the state that the majority of village panchayats which had fairly good balances in 1960–61 have more or less exhausted them by 1964–65.

In most village panchayats, the stamp duty surcharge is the major income of the panchayats. The three panchayats in the Vellakoil panchayat union, however, provide noticeable exceptions. In these as well as in the three panchayats of the nearby panchayat union of Modakkurichi, the development tax levied by the panchayats at their own individual option is one of the main sources of income. The development tax does not seem to have been levied by other panchayats in the sample from other districts and this more or less accords with the general variation amongst the districts. The house tax levied by all is a fairly substantial source of income, though seldom the most important in the sample village panchayats. The income from the vehicle tax is nominal and from the profession tax really insignificant. Some panchayats show an income in the way of government or panchayat union grants; but in this, the practice of keeping accounts between one area and another seems to be dissimilar. In respect of many grants received from the government or the panchayat union, the arrangement is such that though the money may have been received for specific construction jobs, the accounts for these are only kept in the records of the panchayat union. So a clear idea of the amount of grants received in any panchayat area cannot be obtained from the account books or the income-expenditure statements of the panchayat.(Any comparison between the panchayats about the total or per capita income and expenditure on the basis of the statements given in Table 23 without taking into account the actual grants may not be valid.)

On the side of expenditure, very little is usually spent on office staff, postage and travelling allowances. Stationery seems to be an occasional item costing Rs.100 to Rs.200 at a time. Sanitation and lighting also cause little expenditure. So does the panchayat contribution on the school meals programme, only about one-fourth of the sample panchayats having contributed anything at all towards this programme in 1962–63 or 1963–64. The items of expenditure are mostly concerned with construction of roads, culverts, overhead water tanks or other drinking water facilities, school buildings, sometimes a community centre, and in quite a few areas particularly where the development tax

Table 41: SELECTED PANCHAYATS (SOME DATA)

Name of Panchayat	*Year of first formation*	*Area*	*No. of Hamlets*	*Population*	*Income 1963-64 (Rs.)*	*Expenditure 1963-64 (Rs.)*
THANJAVUR						
Thiruvayyaru P.U.						
1. Vellamperambur*						
2. Peramur*						
3. Mangudi*						
Needamangalam P.U.						
4. Kalacheri	1958	2.46 (sq.mls)	6	1,849	26,526	
5. Rayapuram	NR	3.63 (sq.mls)	2	1,932	12,919	
6. Vadavoor Vadapathi	1931	4.64 (sq.mls)	2 (r.v.)	5,157	23,042	
Muthupet P.U.						
7. Thondiyakkadu	1955	3,828 (acres)	NR	2,935	6,679	
8. Kallikudi	1954	922 (acres)	NR	1,734	7,440	
9. Mangudi	1955	1,108 (acres)	NR	2,918	10,501	
RAMANATHAPURAM						
Sakkottai P.U.						
10. Kanadukathan* (T.P.)	1924	NR	NR	5,200	—	

(Contd. on next page...)

has been decided, expenditure on hospitals, dispensaries, etc. The other conspicuous item of expenditure is panchayat plantations—part of the expenditure being met from union grants and the rest from the general budget of the panchayat. The plantation expenditure shows large variations from panchayat to panchayat and in some perhaps the expenditure may be much beyond the income which is expected from them. Probably some of these things have happened due to over enthusiasm at the union level.

The village panchayats in the sample show quite some variations in the periodicity of their recorded meetings. Some met practically every month, or even more frequently, while others only four or five times a year. Practically, all of them have no ‘owned’ building for the panchayat office as such and most of them operate from the residence of the panchayat president. All the five town panchayats, however, have separate buildings of their own. Normally, a panchayat has three to five items on its agenda and two of them are invariably passing of the accounts and passing of the minutes of the previous meeting. The minute books in most panchayats do not contain any formal reporting of what had happened to the decisions taken earlier. This at times results in the adoption of same resolutions in successive meetings of a panchayat. The recorded attendance is fairly good, normally two-thirds of the members attending, though the solitary woman member seldom seems to attend any meetings. Sometimes circulation of the agenda is substituted for formal meetings of the panchayat. This perhaps is no undesirable way out when it is difficult either to assemble the members or there is little to transact.

THE SAMPLE PANCHAYAT UNIONS

A list of the twelve panchayat unions showing their areas, population, number of panchayats in their jurisdiction, their fiscal category, number of schools and other such data is presented in *Table 42*. The number of children attending the elementary and higher elementary schools is 8,000–10,000 except in the much larger Pollachi panchayat union. The proportion of boys varies between 55 per cent and 65 per cent and of girls between 35 per and 45 per cent. The number of teachers is about 250–300 in each of the twelve panchayat unions excluding Pollachi. Of these, 20 per cent to 35 per cent are women. There are four to six high schools in each union and they are pretty large. Most of them have a teaching staff of twenty to thirty each. In Sakkottai and Pollachi panchayat unions, there are large polytechnics and colleges and also a municipal town within each union. Practically, all the union areas have one or more cinema houses in their midst. Six of the union headquarters (Thiruvaiyaru, Needamangalam, Muthupet, Sakkottai, Tiruppuvanam, Pollachi) are railway stations, and four are on main bus routes (Vellakoil, Kandili, Wandiwash, Cheyyar). In only two unions, Rajasingamangalam and Modakkurichi, the headquarters, though served by buses, are not easily accessible. Rajasingamangalam does not boast of a petrol pump either in its area and the union jeep has to undertake a journey of some twenty miles each way to get filled with petrol. As may be inferred from the land revenue figures in the preceding table, Modakkurichi, Thiruvaiyaru, Needamangalam, Muthupet, Tiruppuvanam and Cheyyar are the most fertile; Pollachi, Vellakoil, Wandiwash and Kandili have both fertile and less fertile areas while Rajasingamangalam (though it is classed 'B' for fiscal purposes) and Sakkottai are poor agricultural areas. Sakkottai with its five town panchayats, however, can boast of perhaps the largest number of palatial houses in any panchayat union in the state and has several colleges in one campus at Karaikudi—the area being the ancient home of the Chettiars, well known for business and philanthropy.

Meetings of the council of the panchayat union are held every two months, or more frequently—as ordinary or urgent or special meetings. The urgent or special meetings are convened to consider just one or sometimes a few more items; but in the ordinary meetings usually thirty to forty items are considered. The time taken is seldom more than two or three hours. Two essential items are passing the contingency expenditure and approving the minutes of the previous meeting. At times there are one or two questions to be answered. As in the panchayats, there is no formal reporting made to the panchayat union council on how matters stood with regard to previous decisions. The recording of minutes seldom discloses the trend of discussions and merely states the resolutions and the council's positive or negative decision. Practically, all decisions are of agreement, though at times an item may be deferred for later consideration; rarely, there is negation of what is proposed through the formal agenda. *Table 43* indicates the frequency of meetings and the number of items on the agenda in the different unions in the sample.

Besides the three statutory committees, the Appointment Committee, the Education Committee, and the General Purposes Committee, the panchayat unions have been asked to appoint (1)

Table 43: PANCHAYAT UNION COUNCIL MEETINGS (FREQUENCY AND NO. OF ITEMS CONSIDERED)

Name of P.U.C.	1961–62				1962–63				1963–64			
	Ordinary	*No.of subjects*	*Special & urgent*	*No.of subjects*	*Ordinary*	*No.of subjects*	*Special & urgent*	*No.of subjects*	*Ordinary*	*No.of subjects*	*Special & urgent*	*No.of subjects*
1. Thiruvaiyyaru	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2. Needamangalam	2	28	2	2	10	282	13	46	5	235	8	34
3. Muthupet	8	228	7	7	6	330	6	6	6	365	4	4
4. Sakkottai	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5. R.S. Mangalam	12	160	5	6	8	193	9	19	8	185	2	2
6. Thiruppuvanam	5	192	5	7	10	456	6	7	10	334	—	—
7. Pollachi	3	63	4	55	6	257	8	8	7	286	1	1
8. Vellakoil*	10	372	3	6	9	310	—	—	8	337	6	267
9. Modakkurichi	NR	NR	NR	NR	NR	NR	NR	NR	7	400	8	NR
10. Kandili	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
11. Wandiwash	4	90	3	3	5	137	5	17	12	196	1	1
12. Cheyyar	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

a Women Welfare Committee, (2) a Harijan Welfare Committee, (3) an Ad-hoc School Advisory Committee, and (4) a Block Level Judging Committee. The two latter are composed mostly of officials, the School Advisory Committee consisting of the panchayat union commissioner as chairman and the deputy inspector of schools and extension officer (education) asmembers. Except the Appointment Committee, the others, whether statutory or not, hardly ever meet. *Table 44* shows the frequency of the meetings of the statutory committees in the twelve panchayat unions chosen for intensive study.

The frequency of the meetings of the Women's Welfare Committee and Ad-hoc School Advisory Committee from the two or three unions from which information could be had is as under. (*Table 45*).

The chief executive of the union is the panchayat union commissioner. Section 44 of the Act, while specifically defining his functions and relationship with the panchayat union council directs him to—

perform all the duties specifically imposed and exercise all the powers conferred on the Commissioner by this Act and subject, wherever it is hereinafter so provided, to the sanction of the Panchayat Union Council, and subject also to all other restrictions, limitations and conditions hereinafter

Table 44A: APPOINTMENT COMMITTEE (STATUTORY)

(Frequency of Meetings)

imposed, exercise the executive power for the purpose of carrying out the provisions of this Act and be directly responsible for the due fulfillment of the purposes of this Act.

Table 44B: EDUCATION COMMITTEE (STATUTORY)

(Frequency of Meetings)

Table 44C: GENERAL PURPOSES COMMITTEE (STATUTORY)

(Frequency of Meetings)

Replying to a query from the Central Ministry of Community Development and Cooperation, the Madras government in its reply clarifying the commissioner's relationship with his council stated:

> The Panchayat Union Council is having power to issue specific directions as it may think fit regarding the performance by the Commissioner of any other functions assigned to him under the Madras Panchayats Act, 1958. Except for the above, the Commissioner cannot be said to be under the Panchayat Union through its Chairman.

A note from a commissioner in one of the sample panchayat unions reproduced below indicates how a commissioner looks at his statutory duties.

> *Note on the functions of the Block Development Officer and Panchayat Union Commissioner*
>
> *As Block Development Officer*: Block Development Officer is competent to operate on state funds for the payment of Establishment charges for all establishments for whom payment is made from State Funds (Government). Besides, he can operate on Government funds for all items of work which are not entrusted to the Panchayat Union such as

Table 45A: WOMEN'S WELFARE COMMITTEE (NON-STATUTORY)

(Frequency of Meetings)

Table 45B: AD-HOC SCHOOL ADVISORY COMMITTEE (NON-STATUTORY)

(Frequency of Meetings)

Table 46: MONTHWISE NUMBER OF COMMUNICATIONS RECEIVED AND DESPATCHED
(From Panchayat Unions in the Sample)

Name of union		*Jan.*	*Feb.*	*Mar.*	*April*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*
Thiruvayyaru	Receipt	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Despatch	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Needamangalam	Receipt	1379	1426	1406	1551	1309	1418	1804	2236	2145	1958	2015	2064
(1964)	Despatch	2824	2646	2417	3040	2014	2406	1417	3571	3049	2012	3417	2583
	Receipt	1324	1763	1699	1785	1560	1388	1630	1458	1657	1 03	1330	1705
Muthupet (1963)	Despatch	726	1077	980	1043	941	985	997	627	907	669	860	1010
	Receipt	1363	1428	1380	1144	1148	1149	1309	1357	958	1110	1341	1087
Sakkottai (1964)	Despatch	921	1141	1160	779	912	818	1108	862	1238	891	1036	957
	Receipt	1138	1214	1246	1010	1022	900	1375	1238	1289	1073	1127	993
R.S. Mangalam (1964)	Despatch	1080	1010	1013	1127	1213	1117	919	1050	1178	1413	1257	1153
	Receipt	1511	1435	1375	1334	1302	1210	1403	1038	1377	1307	1371	1531
Thiruppuvanam	Despatch	473	381	432	438	503	492	566	397	411	387	396	416
(1963)	Receipt	1663	1417	1523	1357	1321	1217	1485	1501	1350	1369	1393	NA
	Despatch	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pollachi (1964)	Receipt	1215	1182	1494	1136	1162	1044	1474	1405	1214	1172	1160	1292
	Despatch	1402	1590	1582	1713	1617	1318	1917	1811	1033	1121	2000	1323
Vellakoil (1964)	Receipt	1346	1336	1508	1163	1051	1242	1605	1520	1356	1312	1229	1280
	Despatch	880	805	875	1035	850	895	1040	720	600	840	762	625
Modakurichi (1964)													
	Receipt	833	923	1135	1002	1075	965	1201	1034	1000	1057	879	888
Kandili (April 1963–	Despatch	964	896	981	1174	905	1499	998	846	1559	1358	908	1102
March 64)	Receipt	1054	1059	1393	1252	1000	1097	1553	1437	1208	1183	1087	527
	Despatch	948	1124	870	1543	978	1020	760	1328	984	1248	1327	890
Wandiwash (1964)	Receipt	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Despatch	1079	1460	1180	1301	1086	906	1249	1260	1304	831	1112	NA

Cheyyar (1964)

Harijan Welfare works, contingent bills for the supply of provision to the community centres, etc.

There are various kinds of schemes for the grant of loans to *ryots* under the Land Improvement Loans Act and Agricultural Loans Act. Special rules for pumping installations of oil engines, New Well Subsidy Scheme, Intensive Manuring Scheme and loans for agriculture implements.

As Commissioner: The Commissioner is the executive authority of the panchayat union. He is invested with all powers of appointment, punishment and dismissal of all employees paid from panchayat union funds. He can appoint the candidates selected by the Appointment Committee. He can award punishment to the employees in consultation with the Chairman. He has to carry out resolutions passed by the Council then and there subject to the rules and regulations issued by the Government. He can draw cheques on the funds of the panchayat union for any expenditure connected with the panchayat union administration.

A statement of the categories and number of persons who work under the administrative control of the commissioner in the panchayat union, is given in Appendix 2. The statement is furnished by the Tiruppuvanam panchayat union.

The functioning of the panchayat bodies is governed by the statutory provisions, executive instructions and the financial allocations decided by the state government. The extension personnel in the panchayat union meet every fortnight. The chairman of the union council is associated with every alternate meeting over which he presides. The other meetings are presided by the commissioner. The commissioner, the extension officers and the managers of all the panchayat unions in a taluk attend a monthly meeting under the chairmanship of the revenue divisional officer to review the panchayat union programmes and activities. The panchayat union chairmen in a revenue division also have a more informal meeting with the revenue divisional officer at his headquarters every two months. This latter meeting is held a little before the meeting of the district development council of which the chairmen as well as the revenue divisional officers are members.

The load of office work in every union is fairly heavy. The average daily receipt and dispatch of correspondence adds up to eighty or more. Several of these items are fairly detailed statements, received or filled proformas, etc. A monthwise statement of incoming and outgoing correspondence ('tapals' as these are termed in Madras) in the different sample unions is given in *Table 46*.

The delay in the appointment of the staff, particularly that of the government paid staff—the extension officers, grama sevaks and sevikas, the manager, etc., causes much hardship. In small schools, it doubles the load on other school teachers at times for months together. In other programmes it implies a standstill till the new incumbent has functionally taken charge and familiarised herself or himself with the work. In some unions, the problem has been more acute than in others. As an illustration, in the panchayat union Wandiwash, according to the report of the collector of North Arcot for 1963, the posts of the extension officer (cooperation), extension officer (education), mukhya sevika, compost development inspector, two stockmen, one social welfare worker, three *grama sevaks* grade I, two *grama sevaks* grade II and two grama sevikas were unfilled since 1st April 1962.

More or less similar situations had arisen in other panchayat unions. In the Rajasingamangalam panchayat union, the position of vacant extension posts at the time of field investigation (November 25, 1964) was as under (*Table 47*).

Besides much delayed appointments, on the average, one-fourth to one-half of the government appointed staff are transferred from place to place and post to post every year. The proportion is higher for the extension staff than the secretarial. *Table 48* indicates the number of such transfers in some of the unions from which such information was available.

The yearly total expenditure including the approximate cost of the Community Development and National Extension staff (not accounted in the union budget) in the twelve unions in 1963–64 varied from a little less than Rs.6 lakhs in Sakkottai, Vallakoil and Kandili to over Rs.9 lakhs in Thiruvaiyaru. *Table 49* gives subjectwise break up of this expenditure for each of the twelve panchayat unions.

There is some variation in the expenditure from month to month in every union. Partly this variation is due to the fact that the salaries of teachers are not always paid on the same date and at times the salaries of two consecutive months get recorded during the same month. On the whole, the panchayat unions do not seem to face a problem of too little finance for months together and then getting flooded with money two or three months

TABLE 47

TABLE 48

before the end of the financial year, which is a common experience of all such similar bodies in many of the other states. A monthwise break-up of expenditure in some of the unions is given in *Table 50*.

Table 49: SELECTED PANCHAYAT UNIONS (DETAILS OF EXPENDITURE 1963–64)

(Population and amount in thousand)

	Thiruvayyaru	*Needamangalam*	*Muthupet*	*Sakkottai*	*Rajasingamangalam*	*Thiruppuvanam*	*Pollachi*	*Vellakoil*	*Modakkurichi*	*Kandili*	*Wandiwash*	*Cheyyar*
Population	85	77	62	63	52	67	127	55	87	64	83	76
Fiscal category	A	A	A	D	B	A	B	B	A	B	C	A
Ordinary expenditure (in Rs.)												
Management	28	36	39	45	26	32	29	30	29	34	46	38
Remunerative enterprises	—	—	—	—	—	—	3	2	—	—	—	—
Dispensaries, etc.	30	26	5	11	19	—	10	2	5	25	3	4
Maternity centres	—]	—]	6	—]	9	—	—]	9	9	—]	13	7
Women and child welfare	—	3	4	3	6.7	6	3	3	8	6	3	6
Communication maintenance	39	57	29	34	26	29	54	18	36	41	49	42

Irrigation	47	34	—	11	2	—	—	—	—	18	14	12
Social education	—	—	3.5	—	2.7	—	—	5	9	—	7	5
Elementary education	402	280	243	253	306	353	388	204	220	240	412	332
School meals	33	22	55	10	66	9	27	30	25	15	64	45
Agriculture and animal husbandry	105	—	81	—	36	—	—	30	75	—	68	51
Village Industries	—	—	—	—	3	—	—	36	— }	—	1	18
Other programmes	—	—	4	—	3.6	—	—	7	4	—	3	3
Capital expenditure												
Communications	111	116	108	71	13	42	20	17	146	49	53	69
Rural water supply	36	51	12	46	40	20	40	29	46	24	7	6
School buildings	25	21	30	7	—	25	65	17	56	19	2	10
Agriculture	—	—	—	—	—	—	—	—	—	—	—	2
Village industries	—	—	—	—	27	—	—	—	—	—	2	8
Others	—	—	—	—	—	—	—	48	9	—	—	—

PROGRAMMES

Construction of Roads, Drinking Water Projects and School Buildings

Decisions about the location of new roads, drinking water projects or the construction of a new school building, all of which require varying amount of local contribution, are within the full competence of the panchayat union council and appear to provide the council with its utmost decision-making opportunity. It is difficult to say which particular influences or needs go into such decision-making. The advice of the union staff, particularly the commissioner and the union engineer, would perhaps contribute much to individual decisions. The availability of requisite local contribution would also be a primary factor and areas which are not able to come forth with the appropriate local contribution may not at all get the advantage of these programmes. A union can, according to instructions, relax the contribution percentage in the case of needy panchayats. This, however, would involve either compelling other areas to contribute somewhat more to works which relate to them, or the union itself meeting such amounts out of the surplus in its own funds. No region is likely to agree to contribute a larger share to help starting of a project in another region as matters stand today. The union contributing towards the deficit in the total local contribution amount out of its own surplus funds does happen occasionally, but such occurrences are limited as most unions have little of such surpluses. It may perhaps be true to say that many areas do get much less benefit out of these programmes by the mere fact of their inability to raise the local share. The principle of fiscal classification presently applied amongst panchayat unions could perhaps with more reason be applied to the panchayats within a union.

However, looking at some of these decisions over a period of three to four years in some of the unions, it seems that the decisions are fairly equitable as regards distribution of these amounts among the various panchayats. In the panchayat union, where incidentally the union has considerable surplus funds and has allocated fairly large amounts from them to the works programme, the per capita variation of amount spent in different panchayats is approximately 1:2. Such comparison cannot, however, take into account the initial needs of a particular area. One area may have had a lot more amenities to start with than another. And such equitableness may in fact help in the continuation of the need gap among different areas. The other aspect

Table 50: STATEMENT OF MONTHWISE EXPENDITURE

(Rs. in thousand)

Name of union	*April*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Jan.*	*Feb.*	*March*
Needamangalam (1963–64)	13	30	62	54	38	30	46	28	28	65	44	36
Muthupet (1963–64)	20	59	76	36	56	77	10	40	56	43	113	130
Sakkottai (1964) (Ordinary only)	26	34	31	25	34	27	64	10	34	25	48	66
Rajasingamangalam (1963–64)	36	40	5	7	31	72	13	61	12	98	18	112
Pollachi (1963–64)	42	50	36	64	44	91	56	66	71	97	84	112
Vellakoil (1964) (Ordinary)	25	36	27	43	34	56	70	14	43	33	31	46
Modakurichi (1963–64) (Ordinary)	25	38	30	28	25	38	34	48	51	41	43	54
Kandili (1963–64) (Ordinary)	26	25	22	24	26	42	31	36	42	33	28	88

*The period for which the expenditure pertains is shown against the name of the union. Where it is shown from Calendar year as in Sakkottai and Vellakoil the expenditure for (January and March) of the particular year is shown in the end columns. The expenditure shown is approximate; in some unions it includes the capital expenditure and deposits and balances also, in others it does not.

which the research unit was not able to go into was about the fairness of utilisation of funds between localities or hamlets within the individual panchayats. But the ideas and pressures which bring about such equity at the union level in all probability do operate within the village panchayats also.

Elementary Education

The major functions of the panchayat union in the field of elementary education are to make arrangements for timely payment of salaries etc., both in the panchayat union schools as well as aided schools in the area; to see to the opening of new schools with the agreement of the education department; to appoint teachers of panchayat union schools (including creation of new posts and filling up of existing ones); and to generally do all that is required in the matter of administration. The major task of the council of the panchayat union thus consists in opening new schools, appointing new teachers and deciding on the transfers of existing teachers. Opening of new schools and appointing new teachers is not too frequent. What is said to be of

TABLE 51: Details of Transfer of School Teachers

*Wherever the information is only for one year or so, it is probable that the transfers during the rest of the period 1962–65 were not very marked.

**Forty-two of the transfers in Tiruppuvanam were made on 7th August 1964, perhaps they were in the nature of 'prescribed' transfers.

***The actual number of persons involved at Vellakoil was sixty-six. Of these thirty-two have had more than one transfer, one of the teachers having had as many as six transfers during a period of two years.

more frequent occurrence is transfer of teachers by the panchayat unions. Table 51 gives the number of teachers transferred within particular periods in some of the panchayat unions from which information could be obtained. The approximate rate of transfer in relation to the total number of teachers in an area varies from union to union. The proportion of transfer is as low as less than 5 per cent in one union and as high as 25 per cent in two unions out of nine panchayat unions about which information was available. Incidentally the rate of transfer of the government paid panchayat union staff is comparatively much higher.

Agriculture, Animal Husbandry and Fisheries

The research unit has not been able to make a detailed study of any of the schemes and programmes under agriculture, animal husbandry or fisheries. The position of expenditure under the several detailed heads in the selected unions is not very dissimilar to the overall position in the state, as indicated in the previous chapter. In some unions, the expenditure has more or less kept pace with the allocation while in a much larger number it has lagged very much behind, particularly in items like the grama sahayak service (for multiplication of improved seed), demonstration plots and demonstration farms and fish nursery. Where the panchayat union commissioner is a promotee from the post of extension officer (agriculture), the union seems to be able to make some variations in the detailed allocations. Perhaps, this is facilitated because of better relationship and understanding between the union and the higher officers of the agriculture department that can be established through the commissioner. This may also be partly due to the keener interest which such a commissioner takes in the agricultural programmes. The feasibility of reallocating money from one detailed head to another is wholly interlinked with the instructions and attitude of the agriculture directorate.

The following extract from a recent report, ‘Stepping up of Progress’, from the director of agriculture to the state government, provides an instance of one such reallocation at the council level, along with the department’s view of it:

> Against a total provision of Rs.7,500 for supply of implements and plant protection equipments to individuals, a sum of Rs.11,364 had been spent which is in excess of Rs.3,864 above the amount provided. It was explained to me that the amount provided in the promotion of green

> manuring by individuals had been utilised for supply of implements. It was found that out of Rs.5,000 provided for the promotion of green manuring by individuals only Rs.442 had been spent so far. It was learnt that the transfer of amount from one head to another had been permitted by the panchayat union council. This is an irregular procedure and it was pointed out. It seems as though because it had been easier to purchase implements and equipments, the union had spent large amounts on these, but did not concentrate on important projects such as: the promotion of green manuring by individuals which required some hard work. This was also pointed out to the union commissioner and the chairman.

It is possible that the views expressed above are more relevant than the decision of the particular panchayat union council. The point of the above illustration, however, is that such a view was not expressed or conveyed to the union on the basis of merit but on the basis that it was 'an irregular procedure' and that 'it was pointed out.'

Village Industries

The following paragraphs are based on observation of functioning of the village industries units in some of the selected unions and a few areas of Tirunelveli and Kanyakumari. What is stated below deals exclusively with the institutional arrangements and the relative utility of those units to the people in the particular areas and has little to do with the techniques employed.

Most of the panchayat unions started their industrial schemes rather late. Largely it is due to the late appointment of the extension officer (industry) and other requisite staff which alone could in the present arrangement have initiated anything. By 1963–64, however, most unions had set up a few of the industrial schemes of training or manufacture and a few had come nearly to the end of their industrial allocation of Rs.50,000 for the period 1961–66.

The most common of the schemes which have been set up are (1) tailoring and embroidery units, (2) carpentry or carpentry-cum-blacksmithy training and production units, (3) pottery units along with common facility centres in certain areas particularly in Tirunelveli district, (4) tannery units, (5) distribution of bee-hives, and (6) assistance through cooperatives for bullock-driven ghanis (oil presses), husking of paddy by women, ropemaking and the like. Besides the schemes run through the panchayat unions, the Madras Khadi and Village Industries Board runs and provides assistance to several village industries through its district offices.

The persons directly benefited by the present programme conducted through the panchayat unions are small in number. A tailoring unit in two to three years of its existence provides training to about thirty to forty young women and girls. The training is imparted in one place or the unit is shifted to another area after each course which lasts about a year. There is little arrangement for any follow-up action to ensure that the trained women are able to use their learning after they leave the centre. Many of them being poor evidently cannot buy sewing machines on their own. So the training which they get cannot be utilised to the extent many of them would have wished. Here supply of machines on easy terms and in addition at subsidised rates in cases of need could do much to make the programme more effective and meaningful.

A wider aspect of the training programme is its educational value. With more freedom and facilities, the tailoring and embroidery centres can really become places of much mutual education and exchange of information and views amongst the trainees and their instructors. At present, a certain amount of education no doubt takes place imperceptibly. And if the instructors are provided with more facilities in their work and given greater freedom in their functioning as for instance in the curriculum etc., these centres can contribute much more to village life.

The carpentry and blacksmithy units also do not provide training to more than twenty to thirty persons during their existence and their employment potential is far less. At present many of these centres which have gone into production mostly cater to institutional needs of the panchayat unions by manufacturing furniture for offices, schools, etc. The benefits of training and employment or servicing facilities do not go beyond the locality concerned. Their impact on the general improvement in local technology is not discernible. This equally applies to the tanning and other such centres also.

The problems of the pottery units and the common facility centres for potters, cooperatives of oil pressers, of women employed in the husking of paddy and such other employment industries are different. Some of these cooperatives have fairly well run offices, well maintained account books and the like. Yet most of them do not seem to have created a feeling of belonging amongst those who are their members and work in them. They seem to have remained craft centres and, though helping the worker, have more or less lost sight of him or her as a living being. The result is that though the particular institution or the cooperative society may continue showing larger quantitative output, the situation of the individual worker may be deteriorating. This, in fact, has happened in many of the cooperatives of oil pressers, paddy husking societies and such like. One of the causes may be that persons who manage or supervise these cooperative societies have been trained to look at their tasks in a quantitative and mechanical manner and to keep their records, charts, etc., similarly. So, even if the surrounding situation tells them of the growing hardship of persons with whom they come in daily contact, their charts and records tell a different story. Additionally, when they try to work out per capita income etc., as they increasingly are expected to do, they get into all types of blunders in calculation, in adding up dissimilar data and in working out actual results from hypothetical details. The result of such activity occasionally seems to lead to the opposite of what one initially undertook to attain: that is, the desire to provide meaningful employment to a substantial number of people through village industries.

Many other problems are faced by these employment providing industries. There is the problem of raw material as in the case of paddy which has become a controlled commodity in many areas, the problem of marketing particularly in regard to pottery and hand-made paper and various other problems of governmental regulations. A curious regulation provided that the products of oil-pressers' cooperatives which employed more than a specified number of oil pressers (something like twenty or more) would be liable to a sales tax. The result is that instead of getting the regulation amended or agreeing to pay the tax, the tendency is to keep the number of members below such levels and turn out any who are above the limit.

Somehow, the panchayat unions have not come forward to take greater interest and initiative in the village industries programme. This is largely due to their feeling that they are not expected to do more than what is provided in particular schemes. If at times a panchayat union has come forward to continue a programme like a tailoring unit out of its own general funds after the stipulated duration, this has been looked down upon if not altogether vetoed by the technical and supervisory authorities. It should, however, be quite possible for a number of panchayat unions, particularly those which have surplus balances, to undertake various production and servicing projects quite on their own, given some encouragement and opportunity.

OTHER ACTIVITIES

Besides the above, the panchayat unions concern themselves with several other activities: programmes for women and child welfare, social education or maintaining rural dispensaries, maternity centres and the like. The amounts which are allocated from government grants to these activities vary from about Rs.1,000 a year to something like Rs.5,000. Still, it is possible for some of the unions to allocate some additional resources to any of these activities from the unions' central fund. Many of the unions have done so for one or other such activity. These allocations, however, are small, partly because of limited free, or uncommitted, resources and partly because of other restrictions like ceilings on expenditure on particular items which are laid down through governmental instructions.

DISTRICT DEVELOPMENT COUNCILS

Except the three selected panchayat unions in Ramanathapuram, which were all located in one development district, East Ramanathapuram, the rest of the nine panchayat unions were situated in both parts of the districts of Thanjavur, Coimbatore and North Arcot. The district development councils, as discussed in some detail in volume I, though created by a separate statute, are in the nature of advisory and recommendatory bodies. Ordinarily, the district development council meets every two months under the chairmanship of the district collector, and discusses the same group of main subjects at half-yearly intervals. Each council has six standing committees concerned with the following subjects, viz., (1) Food and Agriculture, (2) Industry and Labour, (3) Public Works, (4) Education, (5) Health and Welfare and (6) General Purpose. The members of the committees are elected by the district development councils and except the General Purpose Committee, which is presided over by the collector-chairman, the rest have non-official chairmen. Initially in 1960–61, most committees had members of the legislative assembly or the legislative council as their chairmen; but presently, the chairmanship of these committees, which are constituted every year, is more and more occupied by chairmen of the panchayat union councils. The corresponding standing committees meet before each meeting of the district development council and items discussed and decided in such meetings are put before the district development council. The number of subjects discussed by the district development council in each meeting range from thirty to forty. Besides these subjects, there are some interpellations from members, their number varying from meeting to meeting and council to council. The interpellations are replied to by the collector-chairman or by the concerned officer on his behalf.

The business of the district development council is divided into two categories: (a) government prescribed and (b) non-official. The 'government prescribed business' is largely concerned with schemes of planned development, their targets, and review. Ordinarily, a meeting of the district development council lasts two to three hours, but sometimes a meeting may continue for a whole day. In the district of Ramanathapuram, many of the district development council meetings are held at the headquarters of panchayat union councils in rotation. The personal assistant to the collector (panchayat development) for the concerned development district acts as the chief executive of the council. There is fairly large staff working under him.

The following reply to a question by a member in the West Thanjavur district development council on 25th February 1964 gives the details of meetings held, subjects disposed of and similar information regarding the West Thanjavur district development council during 1962–63 and 1963–64.

Question: How many resolutions have been passed at the District Development Council so far? How many resolutions have been disposed of after the execution of works? How many resolutions are pending with the Government?

Answer: No. of resolutions passed in the District Development Council:

1962–63	164
1963–64 (upto December 1963)	181
Total	345

No. of resolutions disposed of:

1962–63	112
1963–64	128
Total	240

No. of resolutions referred to Government:	
1962–63	52
1963–64	53
Total	105

No. of resolutions on which orders received so far from Government:	
1962–63	25
1963–64	7
Total	32

No. of resolutions pending with Government:	
1962–63	27
1963–64	46
Total	73

Each one of the twenty-one district development councils in the state adopts 150 to 200 resolutions annually. Out of these, about 25 per cent to 50 per cent are requests or recommendations by the district development councils to the state government or the various government departments. There is little indication in the records of district development councils regarding the action taken on the references made during any particular period.(The total of such requests which have to be dealt with at the government level may be around one thousand annually. It is possible that many of these deal with identical points arising in different district development councils. No specific information on the response from the government is available either in the district development councils or in the R.D. & L.A. department. Similarly the number of resolutions which may be reaching the government from the panchayat union councils may possibly range about twenty-five to fifty per panchayat union annually, thus adding upto some 8,000–15,000 every year. Another 5,000–10,000 requests of one type or another may be reaching the government or government departments at various levels from the 12,000 and odd panchayats. The question of the nature of these requests and what happens to them needs to be looked into and could help in a better understanding of the problems of the panchayat system.) The North Tiruchi development council, for instance, had forwarded 78 resolutions for the consideration of the government during the period between March 1960 and December 1961.

The nature of these references varies. A few of them from two or three of the district development councils in the selected districts are cited below:

1. It was resolved to recommend to the government to abolish both the Young Farmers Club and Farmers Forum since they did not serve any worthwhile purpose.[1]

2. It was resolved to request the government to grant permission to pay a sum not exceeding Rs.5 per month by panchayats for buildings taken on rent by *Mathar Sangams*.[2]

3. It was resolved to recommend to the government that for the effective functioning of the School Advisory Committee and for proper supervision, the jurisdiction of the deputy inspector of schools should be co-terminus with the block and that no deputy inspector of schools should have jurisdiction over more than one block.[3]

4. The council resolved to accept the recommendations of the standing committee to address the government to permit the panchayats to incur an expenditure to a limit of Rs.10 for carrying out repair to the radio sets locally.[4]

5. Resolved to request the government that sewing machines may be supplied to those who have completed training in tailoring units just as supply of craft equipment to those who have completed crafts training.[5]

6. It was resolved to request the government to appoint three grama sevikas in panchayat unions where there are more than fifty panchayats instead of two.[6]

7. It was resolved to request the government to empower the district health officer to purchase medicines upto a limit of Rs.500 in urgent cases even without getting a certificate

of non-availability from the government medical stores, Madras.[7]

8. The district development council recommended to extend the mid-day meals scheme to poor students of VI to VIII standards of higher elementary schools also.[8]

9. The district development council resolved to request the government to fix the teacher-pupil ratio on the basis of students in each class in the school instead of on the total number of pupils in the school.[9]

Quite a number of resolutions, though initially moved, are either withdrawn or not pressed for decision. The reason for such withdrawal is ordinarily not given in the records. A few of these are also cited below:

1. To request the government to permit the panchayat union councils to divert the Rs.2 lakhs sanctioned under the agricultural production programme under various schemes according to their need and to permit the councils to divert more funds for construction of veterinary buildings.[10]

2. To recommend to the government to empower the panchayat union commissioners to adjust the contribution to be paid by the panchayats at the rate of 2 nP. as per *G.O. 1231* of 28th May 1962 towards mid-day meals scheme from the funds available to the credit of the panchayats at block level as the panchayat presidents are delaying the payment of the amount.[11]

3. To recommend to the government to appoint the deputy inspector of schools who is in charge of elementary education, mid-day meals, etc., as an extension officer in the panchayat union.[12]

4. To request the government to amend the District Development Council Act so as to enable a non-official to become the chairman of the district development council.[13]
5. To request the government to implement the instructions (issued in *G.O. [Ms] 2496* R.D. & L.A., 16th September 1962) regarding the relationship between the panchayat union chairman and the commissioner.[14]

Except law and order, the district development councils discuss almost everything which has anything to do with administrative and allied public activity in the district. Topics frequently pressed through resolutions of the district development councils relate to conversion of panchayat union roads into district roads and extension of bus routes. In places like Thanjavur, considerable time is devoted to matters concerned with irrigation projects, availability of tractors and other problems related to agriculture. Questions concerning availability of cement, rice, etc., arise occasionally, as also suggestions that certain licensing powers may be entrusted to panchayat union councils. There are at times requests and resolutions for opening new high schools, veterinary dispensaries, a sub-treasury in specific places in a district. In 1963, there was a suggestion of entrusting cattle pounds to panchayats in Thanjavur. Similar to suggestions and decisions on conversion of panchayat union roads into district roads, there are occasionally suggestions regarding conversion of particular rural dispensaries (managed by panchayat union councils) into government dispensaries.

Under the present operational arrangement of the district development council, the method of reporting on past decisions and keeping track of pending items of which there are many, are not helpful to purposive functioning. The annual reports which are compiled say little. The minutes of individual meetings, though useful as a record, also do not disclose the actual achievements. The consideration and review of programmes and schemes is still largely mechanical and review or formulation on the basis of local need and capacity is yet to begin in the district development councils.

In October 1964, a motion was given notice of in the Madras Assembly by a member suggesting the inclusion in the administrative report of the district development council of information regarding: (i) the number of questions raised by non-official members and number answered and (ii) the number of subjects given notice of by non-official members, the number of subjects implemented and the number of subjects pending consideration. The motion, however, was not considered as the member was not present at the time of its consideration.

Notwithstanding all such deficiencies and drawbacks as well as their advisory and recommendatory character, the district development councils do take public cognisance and are in most cases able to deliberate on most issues. Though such deliberation may also be true of the panchayats in a more informal and unrecorded manner, at the level of the panchayat union councils, such cognisance and deliberation is nowhere to be seen. Perhaps in the case of the district development councils, their mere advisory and recommendatory character, and in the case of panchayats, their face to face relations with real situations, account for their freer deliberations. The panchayat unions, on the other hand, while aiming and claiming to be the main centres of self-governance, have more or less converted themselves (or been made to by the statute and the behests of government) into mere executive agencies.

Note

1. By the North Vellore and South Vellore district development councils during 1964–65.

2. By the North Vellore and South Vellore district development councils during 1964–65. A similar resolution to empower the inspector (district collector) to grant permission in specific cases was adopted by the East Thanjavur development council on 31st August 1963.

3. By the North Vellore district development council during 1964–65, also by the South Vellore district development council during 1961–62.

4. By the North Vellore and South Vellore district development councils during 1964–65. The problem was also discussed by the Coimbatore West district development council on 30th October 1964.

5. By the Coimbatore West district development council on 24th August 1963.

6. By South Vellore district development council during 1964–65.

7. By North Vellore district development council during 1964–65.

8. By Coimbatore West district development council on 24th August 1963.

9. ibid.

10. Moved at the meeting of the East Thanjavur district development council on 23rd February 1963 but later not pressed.

11. Moved in the East Thanjavur district development council on 31st August 1963 but withdrawn as the council felt that there was no need to empower the panchayat union commissioners in this manner.

12. Moved in the East Thanjavur district development council on 31st August 1963. The district education officer felt that the post should not be merged with the union staff and the collector-chairman compared the job of the deputy inspector of schools with that of the auditor of the local funds accounts and felt that if he was appointed as extension officer, it will go against the very principle of independent scrutiny. The council thereupon felt that It would be sufficient if the deputy inspectors were to attend the meetings of the panchayat union councils. The resolution was not pressed. A similar resolution was also on the agenda of the West Thanjavur district development council on 24th February 1964. The district education officer in this case stated that as this involved state policy, he was not in a position to express any opinion on the matter. The subject was adjourned to the next meeting as the mover of the resolution was not present.

13. Moved in the West Thanjavur district development council on 24th February 1964 but it was decided to drop the matter.

14. Was on the agenda of the West Thanjavur district development council on 24th February 1964 but adjourned as the mover was not present.

III

ACHIEVEMENTS, WEAKNESSES AND POTENTIALITIES

The present panchayat system is a combination of two separate organisational, administrative and content-oriented arrangements. Both of these have been considered in detail in Volume I. Mention must now be made of the Community Development and National Extension Service before we can proceed to discuss the achievements, weaknesses and potentialities of the present panchayat system.

There are many elements which go into the making of the Community Development and National Extension Service scheme. Streaks of idealism and fervour mix with strong doses of governmental routine. Being only a small part of the governmental structure, and rather an intruder at that, it is no wonder that till today it operates no differently. But the surprising thing is that, though in some places in the field at times there may still be some effort to get out of the rut, even by circumventing and manipulating the rules and procedure, at the levels of direction there is little attempt even to sit back and visualise what could possibly result from what was directed. This is not new; it really starts at the beginning—as early as 1952—at the very commencement of the programmes. Talking of villagers' contribution, a communication from the secretary of Community Projects Administration states '...If we assume that people can contribute Rs.130 lakhs of their own effort and of surplus earnings, as against the sum of Rs.65 lakhs provided by the government, the estimate will not be unduly optimistic. This has to be done. This alone will provide the test whether the Community Projects are a people's plan or it is a plan foisted on the people...' How could there be foisting of any plan on the people in free and democratic India? It could not be (in the government records) even in the days of British rule. A 'People's Plan' it therefore must be, and a 'People's Plan' it became in this implied sense, in all the printed and duplicated material which issued from the new offices.

The above is only one instance of the manner things were handled. In addition, there were the problems of co-ordination among the various authorities, and problems arising from the role of the 'technical' departments in relation to the extension staff who handled their subjects on the spot; and from the formal and functional relationship between the field staff and the corresponding branch of the state government secretariat, as well as the secretariat of the central Community Projects Administration. These were problems common to all projects in every state and probably the situation in Madras was less complex and more hopeful because of its earlier Firka Development scheme and because of the relative soundness of its finances and the lesser gap between the Madras government servants and the people of the state. Also, the villages in this state in 1952, when the community development programme started, had far more education and amenities than their counterparts in other states.

It is in the context of such unreality and problems, as illustrated above, that the Government of India's Committee on Plan Projects appointed a team to review the working of the Community Development and National Extension Service programmes. The committees in Madras, set up earlier, deal with much larger issues concerning the very constitution of rural local bodies in addition to the problems raised by Community Development and National Extension Service.

The major conclusions of the central team and of Madras committees converge on several points, though many of the details vary. The main changes which were to be brought about by the new arrangement were stated by the government of Madras in the Statement of Objects and Reasons of the Madras Panchayats Bill 1958* as follows:

> ...The most important among the changes proposed is the abolition of district boards at district levels and their replacement by panchayat union councils set up at the level of development blocks delimited under the National Extension Service scheme of Community Development. Two purposes are intended to be secured by this change.
>
> First, the development block will be a much more manageable territorial charge than the district. The members of the new panchayat union councils will have much more intimate personal knowledge of the needs and resources of the

entire local area placed in their collective charge than the members of the district board drawn from a much larger area. The change will thus be conducive to improvement of the efficiency of local administration and more effective participation therein by the elected representatives of the rural people.

Secondly, the National Extension Service establishments have been organised and their members trained with reference to the requirements of service in development blocks, which are delimited on a broadly uniform basis in all the states of India. It is necessary that the services of these organised establishments should be made available to the elected representatives of the rural people. Re-organisation of local administration on the basis of the development block as a territorial unit will help in securing this result conveniently.

The functions which are proposed to be entrusted severally to panchayat union councils and to panchayats will be in the aggregate, the same as those at present entrusted to district boards and panchayats, subject only to the changes specified below:

> First, district boards are, at present, maintaining high schools, hospitals, major district roads and travellers' bungalows. It is proposed that these institutions and works should be excluded from the scope of district board functions to be vested in panchayat union councils.
>
> Secondly, various measures designed to develop the productive resources of development blocks are, at present, undertaken by official agencies in pursuance of the National Extension Service scheme of Community Development which are unrelated to district boards and panchayats. The Bill confers power enabling Government to devolve the responsibility for execution of the entire scheme upon the panchayat union council, with its consent and subject to agreed terms and conditions.

There is, at present, a large measure of overlap in the statutory specification of functions allotted to district boards and panchayats. It is now proposed to revise the allocation of functions so as to remove this overlap and demarcate clearly the respective spheres of responsibility of the panchayat union council and the panchayat.

An important result of the reallocation of functions will be the entrustment to panchayat union councils of undivided responsibility over the whole field of elementary education. They will be responsible not only for the maintenance of all public elementary schools (at present managed by district boards, panchayats or government departments) but they will also be entrusted with responsibility for the provision of grants for aided private elementary schools. The entire responsibility for organising planned development of elementary education on a free and compulsory basis will devolve in each development block, on the panchayat union council concerned.

There is a long standing complaint that the allocation of financial resources to district boards and panchayats at present in force is inadequate. The entire scheme of local taxation and finance, as well as of government grants for elementary education and other purposes, has been reviewed and revised. Estimates have been framed of the increased resources likely to be required by panchayat union councils and panchayats, with reference to the revised allocation of functions. The new system of local taxation and finance, including the revised system of government grants, is designed to make adequate resources available with reference to estimated requirements.

The switch over to the new set-up cannot be effected on a single day. The Bill makes provision for the new legislation being introduced in successive batches in development blocks, according to a phased programme, with 2nd October 1961 as the target date, for the setting up of panchayats in all villages where there are no panchayats at present; and in setting up of panchayat union councils in all development blocks of the state. The Bill provides for the continued functioning of special officers who are at present performing the functions of district boards until these are taken over by panchayat union councils.

All the changes embodied in the Bill have been evolved on the basis of general agreement reached in the course of examination of the White Paper on Local Administration, by the Legislative Committee set up by Resolution of both Houses. The proposals relating to local taxation and finance were formulated by a local Finance Sub-Committee appointed by the Legislature Committee and subsequently reviewed and confirmed by the main committee.

> The Bill is drafted so as to provide self-contained legislation in place of the Madras Village Panchayats Act 1950, as well as the Madras District Boards Act, 1920. A large number of sections of these two enactments have, therefore, to be reproduced without change as clauses of this Bill.

The formation of the 12,500 village panchayats covering the entire state was completed in 1960. The conversion of the existing Community Development and National Extension Service blocks into panchayat union councils on a phased programme was also completed by October 1961. The total rural area of the state is divided into 375 panchayat unions, all of them treated alike with regard to governmental budgetary allotments—no distinction being made on the basis of 'shadow', 'stage I' and 'stage II' blocks. Each union, on an average, consists of some 34 village panchayats and includes one or two town panchayats. The presidents of the panchayats constitute the panchayat union council with provision for co-option of up to three women and three representatives of scheduled castes (and scheduled tribes wherever necessary). In addition to the usual Community Development and National Extension Service personnel of about 20 from the block development officer to the *grama sevak* paid directly by the government, the union has some office and field staff of its own. Besides, each union employs 200 to 300 elementary and higher elementary school teachers in the panchayat union schools. The union also distributes the education grants to the private aided higher elementary and elementary schools. In certain areas like Tirunelveli, the number of such aided schools and teachers would far exceed those maintained by the panchayat union directly. In some others, private schools are nearly non-existent.

By another Act, also passed in 1958, 21 district development councils were set up in the twelve districts. These bodies are advisory and have no finances of their own, and thus apparently no staff and no address. Yet there is a fair-sized staff at the district wholly devoted to panchayat development in the particular development district and presided over by a personal assistant for panchayat development to the collector. The personal assistant (panchayat development) is ordinarily an experienced deputy collector with background of work in the development field as a block development officer or similar position. So also at the sub-divisional level, there is fair-sized staff (including a divisional panchayat officer) to assist the revenue divisional officer (or the I.A.S. sub-collector in some of the divisions where this post exists) in the discharge of his supervisory duties over the panchayat unions in his jurisdiction. The number of panchayat unions varies from sub-division to sub-division, the average being about nine. The oft-repeated appellation 'friend, philosopher and guide' is really aptly applicable to the role of the revenue divisional officer in the Madras panchayat system. In addition to the normal inspection, etc., he presides over a monthly meeting of the superior staff of the union within a taluk at the taluk headquarters and of the chairmen of these bodies at his own office every two months. Like other district officers, he is also expected to attend each bimonthly meeting of the district development council. All the chairmen of the panchayat union councils in the area, chairmen of the municipal bodies, concerned members of the legislative assembly, legislative council and the Lok Sabha and Rajya Sabha are equal members of the district development council. The district collector is the chairman.

Lack of resources cannot be said to be the major problem faced by the panchayat union councils. Not that each union has plenty or even sufficient for the tasks and commitments set before it. There were a considerable number of panchayat unions, 146 in 1963–64 and 126 in 1964–65, which had deficit closing balances. Largely, such deficits are due to the fiscal classifications and the manner of their implementation, and could be easily rectified. In contrast, 23 unions have budget surpluses of over Rs.1 lakh and 56 unions between Rs.50,000–Rs.1,00,000 in 1964–65. There were several unions whose total individual balances exceeded Rs.5,00,000 in 1965. The budget of a union normally ranges between Rs.6 to 8 lakhs annually. About half (or more) of this is allotted to elementary education, about 20 per cent to rural works and panchayat union road maintenance, about 3 per cent to 5 per cent to management (not including the salary of the extension staff which would be double this amount and is directly paid by the government), some 5 per cent to 10 per cent to health, welfare, social education and the like; upto 8 per cent to school meal programme with variations from union to union; and 8 per cent to 10 per cent on what is termed as the production fund budget, i.e. agriculture, animal husbandry, fisheries and village industries, the central programme of the Community Development—National Extension Service nexus. The share from the government grants in the total budget is around 75 per cent, while 25 per cent constitute the panchayat union's own income derived from taxes levied by it or in its name by the government and other miscellaneous sources. The total schematic budget of the 375 unions for 1961–62 to 1965–66 is Rs.100 crores, of village panchayats Rs.37 crores and of the 400 odd town panchayats Rs.5 crores. The budgets of the village panchayats are more self-contained, their own income or income specifically collected in their name from taxes, etc., contributing a little over 50 per cent of their income.

A budget of Rs.6 to 8 lakhs, however, does not provide much freedom or opportunity to the panchayat union in terms of the use of quantitative resources for practically all of this money is committed to specified schemes and programmes. Most of it, nearly 60 per cent to 70 per cent goes on salaries. Even the rest, the money for works (road maintenance, village roads, water supply, school buildings), for production purposes and the school mid-day programme, is fairly strictly divided into various items of use and the manner of use laid down to the minutest detail and supervised by several categories of administrative and technical superiors. So the possibilities of varying achievement have little to do with the use of resources which are available with the panchayat union council and its staff. With the manner of use laid down and technical specifications provided, the utmost which could be done would be to use extra care and not allow a single paisa to go waste. The result of such care could, however, never amount to more than 10 per cent to 20 per cent of the results which would ordinarily follow from the utilisation of the quantities involved. Moreover, it would hardly make any real difference to the pattern of growth or development in a panchayat union if the Rs.2 lakhs which can be so manipulated can be made to do the work of Rs.2.20 or Rs.2.40 lakhs. This is desirable in itself, but hardly material to the issue of development.

The greater contribution, therefore, in the functioning of the panchayat union could only come from a greater utilisation of the technical abilities of its staff and the planning and decision-making qualities of the members of the panchayat union council and their ability to attract locally available technical talent in the service of its area. Of this, as matters are arranged today, there seems to be little scope. Both the staff and the elected are absolutely tied today, and the former ordinarily so very frightened of their superiors—of whom there are several to be attended to or to be approached warily—that each one of them is wholly involved in not doing what may be considered ‘wrong’. There is no time or opportunity to even begin considering what one is doing, not to speak of finding better and more worthwhile ways of achieving the end in view. What is being achieved today through the panchayat unions is really, both in its positive and negative aspects, wholly due to the quantitative resource inputs, and the arrangements and the instructions which have been provided by the state and central authorities.

It is not as if the elected bodies make no decision at all. They can certainly decide where to build a village road, construct a school building or dig a well. The panchayat union councils also decide on the recommendation of their committees the appointment of their school teachers, clerical staff, etc. Furthermore, they can decide the location of maternity centres (one for every 10,000 population) or dispensaries. And they certainly do all this. The staff would also, particularly the block development officer and extension officers, have a say in many of the above things—at least from what is termed as a 'technical' angle. The *grama sevak* can decide where to put a demonstration plot (for which he has a budget of Rs.4 annually), where to start the demonstration farm (for which he has an allocation of Rs.120 a year), whom to recommend or select as a *grama sahayak*, and pay the subsidy of Rs.2 per maund of improved seed distributed, whom to encourage to dig a compost pit to claim Rs.3 and several such matters. Similarly with the others—the two *grama sevikas*, the *mukhya sevika*, the extension officer (industry), the extension officer (animal husbandry), the extension officer (agriculture), etc. Additionally, the higher ones supervise the lower ones, keep track of the time-schedules for meetings, returns, reports, diaries and the miscellaneous requests for information which keep pouring in. All this probably leads to some improvement and some variation in the work of the unions, but mostly the job of the people in the union is to carry out instructions, to do the leg work or attend to the routine of their office desks or classrooms and see that there is no rebuff, no black marks of any type from the technical, administrative, disciplining and inspectorial superiors.

Such a situation need not necessarily be undesirable. In fact, if certain primary assumptions and decisions are agreed upon, this may be the only way in which one's agents in the field should function. But then it does not require the present elected superstructure—which, though not really very expensive in itself, is certainly far too heavy. A man who functions in the field would, whenever he requires it, consult the necessary people. That is a pre-condition for functioning anywhere. One does not have to create statutory councils and committees just for that. Advisory or consultative bodies could probably do the job better and retain freedom of opinion for the body and of action for the worker.

A more serious requirement of functioning under central instructions would be the ability of the central directing and instructing agency or agencies to attend individually to the problems and requirements of every unit. This is something which cannot be avoided. The whole purpose, perhaps unstated, of linking the technical personnel with the people's representatives was just that. If it is felt—for whatever reasons—that these bodies cannot be entrusted with the making of basic decisions, such decisions should then be made elsewhere. They can be made at the state level or some other regional level, but should be made for each unit individually. The unit must know in what manner and to what extent it could depart from the norm, from the schematic plan. And the responsibility for results would be that of the level which provides the plan and determines the structural arrangements.

If this is not what is wanted for socio-political or other reasons, the question arises of what exactly are the specific shortcomings in the present arrangements. The problem may be stated as under.

The present manner of the allocation of resources—and probably it could not in the existing structure follow a very different pattern—between the different subjects bears little relationship with the staffing arrangements. Practically all the extension staff (except the block development officer, the social education extension officer, whose main charge now is administrative supervision of elementary education, and the three women workers) are concerned today with the specified utilisation of some Rs.40,000 to Rs.50,000 a year (which is less than 10 per cent of the block budget). This pre-occupation of theirs somehow overshadows everything else in the union. The result is that, on the one hand, there is a wastage of personnel in administering little resources; and, on the other, utilisation of larger resources getting much less attention and guidance. The main sufferers in this are the elementary schools and the panchayats. A lone extension officer (education)—to deserve his designation—can do very little in the way of extension for some sixty to seventy schools with a strength of 8000–10,000 pupils which each union has. The same is true of the village panchayat. The present extension officer (panchayats) is only an auditor of accounts. Wherever there are more than sixty panchayats in a union, an additional man is provided. But the job is the same and the area is divided between the two. The present extension officer (panchayats), because of the nature of tasks assigned—and not because of his training and capacity—is in no position to help in the growth and strengthening of village panchayats, as his designation seems to require. In fact, his work may somewhat weaken them, make them unnecessarily cautious and frightened, and further lead them into a habit of fixing and falsifying accounts, minute books and the various other papers and documents they maintain. In fact, in certain situations, he has to act as some sort of surveillance man over the panchayat president.

This lopsidedness of staffing frustrates whatever little a panchayat union council or its officers may wish to do. Leaving aside whatever training they have in their particular profession—and it is really nothing very profound—one extension person in the union could easily be interchanged with another, at least for temporary purposes. This, however, no union can decide by itself. The staff is tied to a specifically defined job and if for some reason there is no scope of doing much in the particular field, he must idle away his time, with obvious consequences to every one else in the structure. There is much of this today.

If the extension man is not to do anything except his individual expert duty, the better arrangement would be to give him greater freedom to initiate whatever seemed to him more worthwhile, if necessary out of a specified list of items, and watch what he achieves. And if he could not be left on his own, he could be placed at the disposal of such panchayats which required his services, leaving it to them to derive whatever benefit they could from his talent. A third choice would be to put him under the direct charge and responsibility of his technical superior, who should be free to assign him work. In such a case, if a panchayat union or a panchayat wanted the technical assistance of a particular extension official, it would approach the superior concerned. The existing structure leads to the rusting away of whatever knowledge and skill possessed by each of these persons concerned.

There are some couple of hundreds of registers which are maintained in a panchayat union and its agricultural store. Further, a union submits over a hundred periodical returns everyday, week, fortnight, month or quarterly to various superior authorities. Additionally, the *grama sevak* maintains a number of registers on his own and submits a considerable number of returns about his various activities and movement. Yet, except to some extent from the panchayat union's budget or expenditure and income statement, which is fairly detailed and elaborate, no picture easily emerges from any record about what is actually happening in a union in any particular field, or the total activity of union in its area of about 100 square miles. The ignorance about what is happening in smaller units, the panchayats, the hamlets and the individual beneficiaries is altogether dismal. Even in the field of agricultural development, which is so widely talked about by one and all, no unions or panchayats—except perhaps certain areas of the Intensive Agricultural Development programme in Thanjavur—can show in one register or chart, what has been done in toto in the field of agricultural development in any panchayat, let alone in smaller divisions like hamlets, etc. There are elaborate records of individual articles sold or distributed, and even individual registers of these records allotting a separate page to each panchayat are maintained. But no person, no record of any type, no file, chart, diagram and no register can show which of these articles together and in what quantities have reached a particular panchayat in any period. The question of having a similar statement about any agricultural family to whom various types of assistance have been provided, does not really arise. With so much talk of planning and development, the fact that this elementary thing has not even been thought of at the directing levels is the saddest aspect of the working of the Community Development and National Extension Service part of the panchayat system. It is not as if the extension and secretarial staff does not understand these matters. Many of them certainly do. Their attitude is that they need not and should not do anything that has not been prescribed. The situation has declined so low that one dare not even think of doing what one has not been asked to do. The superior technical officers are probably much too occupied with far more important activities to have time to think of or suggest this or similar visualisation and presentation which could have done much to enlighten their junior colleagues about the work they do, the achievements that are there and the shortcomings which need repair.

This is also true of the records of the *grama sevak*. Nobody has even time to look at them and to make him see the benefit he could derive from such labour. The result is that most of what he keeps serves little purpose; and at times is not even dependable. A large part of it he copies from elsewhere; and each copying adds more errors.

Each one of the extension staff has to maintain a diary and has to submit copies of it for the perusal of his superior officers.

Yet nowhere has anyone worked out what all this activity really means. It is said that these diaries are really not reliable, that they do not give a true account of the activities of the writer. It is also said that the people in the union, the council members as well as the commissioner, know exactly what is happening, what each extension officer and *grama sevak* is doing in the union. If that is so and the diaries are not really trustworthy or useful, why maintain them? If these serve no purpose, they should be discontinued. Yet the diary, even a fanciful one—and there is a limit to exaggeration in all such situations—if utilised along with the others and for a period of time, could really indicate the nature and frequency of the contact of the extension personnel with each panchayat, village or hamlet. It is not really very difficult to do this job and its purpose certainly should not be to show up any man. The purpose of such use of the diary material would be to understand the real usefulness of extension work, and find out which areas could do better with more attention by the concerned extension staff. A programme for the succeeding year could be based on the experience and work of the previous one. Of course, this assumes that the visit of the extension staff to a village and panchayat serves some purpose. If this is not so, perhaps one need not worry about such matters.

Presently, the contact of the extension officer (industry) and the union engineer is mostly in the panchayats where their particular programme operates. This would, in the case of the extension officer (industry), be at the most ten different villages; and of the union engineer, at the most one-half of the number of panchayats in the area in any one year. The extension officer (agriculture) and the extension officer (animal husbandry) reach a larger number of villages and panchayats, but seldom all; and usually visit a panchayat no more than two or three times a year. The extension officer (panchayats), who is expected to do quarterly audits and a final audit every year, can usually make only two or three visits a year to a panchayat. Even in his case, sometimes a few panchayats are left out. The extension officer (education) is expected to pay frequent visits to panchayat union schools. It seems that he pays two or three visits in a year to most schools but not really to all. The *mukhya sevika* and the *grama sevikas* obviously can move even less. They have good contacts with a few villages and panchayats and little contact with others. The two social workers who are recruited from amongst political sufferers or from among their near relatives, probably have more contact; but their job is practically like that of a salesman of literature and a manager of public gatherings to celebrate the various prescribed 'days' and 'weeks' and little else. The commissioner's contact with the villages and panchayats is somewhat more. He may visit many villages more than six times a year, but some of them perhaps not even once. There would rarely be any person in the extension staff who would have visited every village and hamlet during a year, or even during his total stay in the union. Visits, of course, are largely cursory and may frequently only mean a few minutes' stay in the village. The *grama sevak*, who is expected to live in a village and, who mostly lives there, is the only one who visits all the hamlets and villages in his area. His contact would extend to about 10 per cent to 20 per cent of the heads of households.

The concept of Community Development and National Extension Service scheme was formulated and their details worked out in the late 1940s and the early 1950s. Though its area coverage has increased manifold with consequent increase of total 'trained' personnel and total financial resources devoted to it, essentially there has been little change in the content of the schemes since about 1953. On the other hand, the personnel and financial resources meant for the Community Development and National Extension Service core have undergone a somewhat planned quantitative reduction. This would be true of all parts of the country, as the basic decisions about it are of an all-India nature and the Government of India's Ministry of Community Development (formerly the Community Projects Administration) prescribes the staffing and financial pattern. Looking at the allocations which have continued to be provided to the basic unit, 'the Community Development and National Extension Service block', one can only infer that this is one of India's depressed programmes. The total allocation for a state or the whole country, instead of enlightening, only hide the reality. It is at the level of the unit that the problem has to be understood.

The depression has set in two ways. *First*, strange though it may seem, the depression is due to the successful achievement of the programme itself and of the other larger changes in education, electrification of rural areas, better communications, extension and spread of urban-originated ideas, goods, methods of doing things through the various media which have had large expansion and influence at least in a state like Madras. The result has been that the knowledgeability, and at times the resource availability of those whom one used to and still continues to approach, is at least at par with one's own similar capacities. Further, such rural people, not being in the strait-jacket of a predetermined set up, are open and receptive to ideas and influences from everywhere. The extension worker, in contrast, even in absolute terms, begins to know less and less—his environment having a corroding and rusting effect on him and making him more hidebound and far more subordinated. His situation today is such that, if not of an adventurous and pushy nature, he is resigned to his task and fate, and if adventurous and pushy, he is cynical of what he does, and his main effort is to get away out of this particular rut somehow, which many of the extension officers certainly achieve.

Second, the financial allocations made in terms of subsidies and matching grants, have stayed more or less at the quantitative figures which obtained ten years ago. Their sub-divisions have become finer and much more bound by instructions and rules. A subsidy of Rs.2 or 3 on anything given in the early 1950s might have had some meaning then. Today it has very little. Its actual value has declined to one-half of that, and its persuasive value, however needy the person to whom it is offered, may be really nil. For the majority of rural people who are yet untouched by the favours of recent change and development, these amounts may still mean something—though not very much. But working amongst them and with them is a far tougher job. It was hard when these programmes started; today it is well-nigh impossible. The element of will and hope amongst the personnel and the quantitative inputs which are required for a new venture amongst such people are not traceable in the Community Development and National Extension Service set up at any level inclusive of the directing centres.

Such a situation has its inevitable consequences. With the instructions as they are and the fear of non-compliance which pervades the atmosphere, the extension personnel, particularly the *grama sevaks*, either keep on running after people they know, begging them to produce and supply a *maund* or two of improved seed, dig a compost pit here and there, buy some insecticide and various little items which are in their programme, and make them accept paltry little sums, and fill and sign on the various dotted lines. Sometimes it works, may be to some purpose also; at other times, lack of success leads to manipulation, to fixing of records and the like. While the system is becoming less and less workable, no one can speak to one's superiors today about the unworkability or ineffectiveness of the system; and cannot think of suggesting any drastic amendment or its total abandonment. These topics do not figure in the innumerable meetings which the extension personnel have with their technical or administrative superiors. If ever any such query is raised, it is silenced by being told that others were doing the work and submitting the right reports, and to do as they do and not raise such irrelevant issues again. Probably one could persist; yet, there is a limit to persistence in a superior-subordinated relationship.

This trend does not limit itself to conforming to the prescribed use of resources only. It precludes and inhibits the extension personnel and even the panchayat union councils from bringing to the notice of those who are in a position to decide, the little additions or alterations which may be required to render a given scheme or programme more purposeful. Practically all such decisions lie not with the revenue divisional officers or even the collectors, but in the state secretariat and the offices of the heads of departments. As a result, one trains some people in a few village industries but can do little and suggest even less about what could be done to enable those trainees to put to use what they have learnt later on. At times this may only be a matter of some little loan assistance to buy some tools, to buy a sewing machine or some such equipment. Probably in many such cases, the suggestions would receive attention and acceptance. The climate, however, is such that one does not suggest anything or those who may still wish to, have no means of doing so, being at the bottom rung of the governmental hierarchy.

Regarding agriculture, animal husbandry and fisheries, it may be relevant here to compare the resources, financial and in terms of personnel, which are available to the concerned departments at the state level and to their subordinate offices with those which are at the disposal of the panchayat bodies.

The state expenditure on agriculture and some income pertaining to it (under ordinary) during the past few years has been as shown in *Table 52*

In the agriculture department during 1964–65, 341 posts of officers and 8,121 posts in the establishment consisting of 5,326 special and 2,795 ordinary categories were sanctioned. Neither the expenditure, nor the personnel given above includes any substantial amount or personnel who are available to the panchayat unions. The panchayat union allocations come directly from the Rural Development and Local Administration Department at the state level.

TABLE 52

*It may be mentioned that similar amounts as income were shown in the Budget Estimates and Revised Estimates of previous years. Yet though the Expenditure estimates were invariably exceeded, the actual incomes were less than half of those estimated.

The staff which is now available in the panchayat unions has no officers as such as understood in the government. All the extension staff is classed as special categories. The clerical staff working in the agricultural store would be termed common category. The staff which is available in the 374 panchayat unions is shown in *Table 53.*

The average annual amount available to a panchayat union under agriculture is Rs.24,500. This, of course, does not include the salaries of the staff. If it can be fully utilised, which seldom is due to the various stipulations, it amounts to ninety lakhs of rupees yearly. The cost of the staff may be another one crore rupees. It may be seen that the total of the two is about 30 per cent of the ordinary net expenditure of the state Agriculture Department during 1963–64.

Similarly, the income and expenditure of the animal husbandry department was as under (*Table 54*).

The number of sanctioned posts in the animal husbandry department in 1964–65 were 131 of officers, and 3,053 of the establishment comprising 2,327 special and 726 ordinary categories. As in the case of agriculture, these resources were in no substantial degree transferred to the panchayat unions.

TABLE 53

The panchayat unions' allocations again arose in the Rural Development and Local Administration Department.

In comparison, the staff for animal husbandry in the panchayat unions was only 374, one extension officer per union. The five year budget for animal husbandry was Rs.14,000 as subsidies, etc., for pedigree bulls, cockerels, rams and as expenditure for poultry units, and another Rs.17,500 for construction of a veterinary dispensary. This latter can hardly be construed as a direct expenditure on animal husbandry activities through the unions; and moreover, these dispensaries have rarely been constructed at all. So the amount available is Rs.2,800 a year, which works out to Rs.10,47,200 for all the 374 panchayat unions. Taking into account the salaries of the staff which come under Rural Development and Local Administration, the total is

TABLE 54

only a fraction of the ordinary net expenditure on animal husbandry through the animal husbandry department in 1963–64.

There is a provision of Rs.36,000 for starting fish nurseries in the five year union budget. But this programme seems to have been started rarely and in most of the unions the amount is quite unutilised. There is also no specifically assigned staff allotted to the union. The net ordinary expenditure in the state on fisheries was Rs.33,69,193 in 1959–60 and Rs.64,00,000 (approximately) in 1963–64.

The object in examining these is neither to justify the relative lack of achievement in these fields through the panchayat bodies, nor to enter into any criticism of the state departments, but only to put the subject in a somewhat better focus for a purposeful consideration of the primary problem.

Several instances may be cited to show how unrealistic and unimaginative are government prescriptions and specifications with regard to works, etc. The estimates and designs for the elementary school buildings first worked out in 1950 were communicated to the people concerned some eight years later. The same designs, the same estimates, still hold true. Estimates for all major works all over the country have nearly doubled in the past ten to fifteen years. In the rural areas, the value of the rupee is supposed to stay unchanged!

The most depressing example of this is in the provision for the school meal programme. Leaving aside the impossible instructions which, in the prevailing situation, could only lead to falsification of accounts and records, not for personal advantage but for public good—which should make everyone hang his head in shame—the provision of six naya paisa, first made as the government contribution for every meal served, has remained the same in 1965. Not only have prices for everything gone up in the period, even the state budget has grown three-fold, and the education budget more than twice in the intervening seven-eight years. Surely, there must be deterioration in the quality and quantity of the food provided for an amount fixed eight years back?

The school meal programme is really very old in the Madras state; the Madras Corporation provided a meal worth 1½ annas in the money of those days to the children in its schools even in 1930. This scheme, however well-intentioned when it was mooted, has by now become a pale shadow of what it might have been some years ago. Further, the instructions which have been provided* in the past few years have made most heads of schools, where the programme operates, into some sort of fabricators of records. The number of such schools being very large, some 30,000, its demoralising effect on the teachers and the taught must be very wide indeed.

The basic point on the school meal programme needs rather urgent attention. Why do we want these meals? As a bait for enrolment, it is no longer necessary in most parts of the Madras state. And the bait is no longer really a bait, having lost more than half its quantitative value. If it still serves as such in certain areas, it is a matter of shame, something to be perturbed about, and nothing to brag about or be proud of. If it is a programme which is meant to be continued for most school children who do not go back home in the school lunch-break, it has to be put on a sounder footing. Furthermore, however poor India may be, it certainly still has the capacity to look after its children. They may not be looked after in the manner children are taken care of in the more favoured areas of the world. Well, that is something which has to be put up with perhaps temporarily, perhaps for all time. Yet, it does no earthly good and brings in a lot of harm, blunting of the senses and increase in feelings of humiliation if the country has to approach for or accept petty contributions from all and sundry to distribute little bits of milk powder, of vegetable oil, of corn flour to the children and the teachers in the schools of India. The country having to seek or accept all types of other aid at the national level in no way justifies the seeking or receipt of external contributions for the school meal programme anywhere in India. Such non-acceptance need be no offence to any of India’s international friends or well-wishers.

Along with the expansion in school enrolment, there has, for a variety of reasons, been a deterioration in the quality of education imparted, in the upkeep of the school, and an increase in the load on the teachers. Some of it was inevitable due to enlarged enrolment with limited financial resources. The number of pupils to a teacher has increased considerably; in fact, it has been so decreed through orders and instructions. As there was never any provision at the elementary school level for a central reserve of teachers to fill in temporary vacancies—and there is bound to be some 10 per cent to 20 per cent of absenteeism due to leave, sickness, resignations, etc., in any system—the situation in many small schools with not more than two or three teachers can really become impossible for weeks and months on end. A school of any type—either for children or older trainees—is not an office, and things cannot be postponed for another day. Everything requires instant attention. With the added prescribed weight to the existing load, this is well nigh impossible. The more orderly solution really is a reserve of teachers and additional resources for equipment and similar other things.

There may be genuine difficulties about finding additional resources or considerable time lags may occur in receiving them. Here voluntary assistance has a great role to play. Voluntary assistance may be in terms of cash or goods or ‘muscle’ labour or may be in the form of volunteering one’s talents and training for a common purpose. Today on an average, every panchayat area would have at least a dozen of young men and women who have just finished studying up to the S.S.L.C. standard. Many of them have little to do and are not really hard-pressed for money. Some of them probably would be happy to be asked to help in schools and similar other activities. It would help the schools, help these youths and certainly tone up the school atmosphere. Though none of such volunteers would have the requisite training, their education would be on par with most of the elementary school teachers. Nothing can be done by the people or the panchayat union councils about seeking such assistance unless the Education Department permits such a practice. Similar solutions could also be thought of in other village situations including the management of the school meal programme which could be much better organised by the *mathar sangam* than by the overworked school teachers or the village panchayat president who would have hardly any time to look after the daily routine of the school meal or its budgetary details. Moreover by doing so, these *sangams* can certainly discover a channel of effective approach to village women.

Committees in the panchayat unions and even at the district level are least effective bodies. Wherever it is so stipulated, they do hold their meetings as frequently as required, at least in the records. Where it is not prescribed by governmental rules, the committees seldom meet. Perhaps it is a reflection of the fact that they have little to do. It appears that the continued practice of ignoring bodies in favour of individuals going on for half a century or even longer has taken deeper roots.

Madras has had the provision of interpellation of the chairman or the president of a local body by a member from the very beginning. Restricted in course of time, it, however, still obtains.

There are areas where meetings of village panchayats are more vigorous and better attended. In many areas, even a substantial number of villagers turn up at the meetings. In fact, from the very beginning of the century, meetings of all local bodies, at every level in Madras state, are ordinarily open to the public. But in some areas this is not encouraged by the elected or the employed; while in many other areas, such a provision in the rules may not be known even to the panchayat union staff. The provision that people of the area can attend meetings of the panchayat union councils is certainly either unknown or forgotten, or possibly not publicly revealed to the local people to avoid various types of embarrassments. The meetings of the district development council are attended by a few journalists, who perhaps live in the district town.

In quite a large number of panchayats, meetings are not well attended and in some it is even said that no real meetings are held at all. In certain areas the proportion of such panchayats is said to be as high as 50 per cent. Lack of resources for doing anything and factionalism are said to be the causes for this. But it seems that lack of a community place where the panchayat could meet is really a major reason for not holding meetings. In a large number of places, the residence of the president serves as the office of the panchayat. This discourages or keeps members away from a meeting. It is not as if the panchayat village has no communal place. Usually it has at least a school building. But a real problem is created by the government direction prohibiting meetings of the panchayats on Sundays and other prescribed holidays, and prescribing that meetings should take place in offices. A school could easily be available on a holiday. Unless it is arranged that either the panchayat office can be situated there, or that the meetings can be held at any commonly agreed place and date, the problem unnecessarily created by outdated government regulations will remain unsolved.

In the relatively larger panchayats covering a large number of hamlets, it is pretty difficult to interest the people in panchayat affairs and keep such interest alive. The problem posed by the size is not really very complex. Creation of some sort of sub-panchayats or rotating the meeting of the panchayat in different villages and hamlets could be of considerable help. Bifurcation of the larger ones may in some cases help, but at times this may not be desired for reasons of financial adequacy etc., by those involved.

A few other suggestions, the first two of which should not cause much worry in implementation, may be made here. First, it would add to the utility and some more initiative even within the present framework if in addition to the services of the panchayat union commissioner the panchayat union council was allowed to have a secretary of its own. He may be an elected member of the union or someone who is appointed by the body to such a post. The job of the secretary should be to attend to the decision-making functions of the body; to prepare its agenda in consultation with the chairman and other members; to communicate the decisions of the body to those concerned; to keep the body informed about the needs and achievements in individual areas and the union as a whole and to do all that which the body may wish to be done, but which may obviously be embarrassing to the government-appointed panchayat union commissioner if such tasks were forced on him. The commissioner with all his competence, ability and capacity for initiative is still a very junior servant of the governmental structure. One cannot expect him to be the spokesman of the union in relation to the government. Such a task is also not possible for the chairman to undertake in an organised manner and through the formal communication channels, which alone can bring forth specific governmental response in most situations. His meeting the higher-ups, whether at the ministerial or administrative levels as a leader of his area, though pleasant, can and does achieve little. Having a secretary, if his tasks are clearly specified and demarcated, need cause no complications in the present functional set up which can continue to operate under the panchayat union commissioner as it does at present. In fact, the arrangement could be a great support to the commissioner and eliminate many of his current worries and embarrassments.

The second suggestion relates to the area jurisdiction of such government officers within a district who, though outside the panchayat system, are mainly concerned with the provision of instructions, guidance or supervision to what is being done through it. Of such persons the largest in number are the deputy inspectors of schools, who are the technical and academic supervisors of the elementary and higher elementary schools. Their number today approximates the number of panchayat unions (374). Yet, in a substantial number of cases their jurisdiction is divided between parts of two or three unions. There are a few instances when the number of schools in a union is large and cannot be managed by one deputy inspector of schools. In such cases, two or even more persons may be needed. But the need is to revise the jurisdiction of the deputy inspectors of schools and make them coterminous with union jurisdictions, or a half or one-third of a union when there is such need as is being done in the case of the two extension officers (panchayats) in some of the unions with large number of panchayats. The step was contemplated by the government several years ago but nothing has been done so far. Such a decision probably would imply the creation of a few more posts of deputy inspectors of schools.

The issue of jurisdiction also requires some rationalisation with regard to the jurisdiction of some of the district officers in fields like agriculture, cooperatives, etc. and of assistant engineers who are concerned with the working of the Rural Works Programme in the panchayat unions. In the districts of Madras, a district officer of agriculture (except perhaps in the Nilgiris and Kanyakumari) is not in charge of a whole revenue or even development district. Some of these technical subjects have nearly as many district officers in a district as the number of revenue divisions. But the number of such officers and the divisions may not always be equal, nor their jurisdiction identical. In all such cases it would be more rational and administratively more useful if the jurisdiction of each district officer or assistant engineer is made coterminous with the revenue division. Wherever there has to be more than one such officer in a division, the division could suitably be divided without splitting a panchayat union area in the jurisdiction of different officers.

The jurisdiction problem also creates complications in relation to revenue villages and panchayats. The borders of a large number of village panchayats (about 7,800) are coterminous with that of revenue villages. But about 1,250 panchayats cover less than one revenue village, while over 3,000 extend to more than one revenue village, thus resulting in the division of many revenue villages between two panchayats. The matter seems to have been under the consideration of the Madras government for an appreciable time, and matters seemed to have been moving towards some rationalisation in 1962. Yet somehow the subject seems to have been forgotten or has purposely been filed away. The question, perhaps, is connected with a re-organisation of the whole structure of revenue administration at the local levels and the relationship which has yet to be established between the two different categories of subjects termed as 'revenue' and 'self-government and development' respectively. Much thinking is already there on these subjects in the records of the Madras government; only it requires some decision and a workable public expression.

Some data on the number of the various categories of what are termed as village revenue servants may be given here (*Table 55*). The data is taken from papers on the Madras State Budget for 1961–62.

The average of this village based revenue staff would work out to 158 persons of various categories per panchayat union. It may be noted that this is about seven to eight times the number of extension personnel in a panchayat union and nearly 50 per cent to 60 per cent of the number of elementary teachers, who also are public servants. In comparison to the total number of elected members of panchayats (1,17,629), the number of

Table 55

village servants is just about one-half. Their emoluments however bear no relationship with the emoluments of any other paid public servants having been fixed in the early years of the nineteenth century and having undergone little change thereafter. In this at least, the village servants are comparable to the members of the Board of Revenue, whose salaries have also remained stationary at far more elevated levels fixed some 180 years ago.

Probably an equally thorny question on which there may be several view points would be with regard to the functions and jurisdiction of the Community Development and National Extension Service personnel in the panchayat union. In terms of extension, because of the prevailing circumstance, most of the personnel has outlived their utility. They are still useful, but hardly in the promotional or technical fields. It may yet be possible to make them useful and take interest in the promotion of technical know-how by furthering their intellectual and technical equipment, reorganising their jurisdiction and rearranging their functions. The jurisdictional problem here would be that the technical person, like the present extension officers, who can be expected to do certain jobs on his own should have a much smaller jurisdiction, something like that of one or two *grama sevak* circles where he can personally do, or at least certainly supervise, a technical job. To have such persons in every one or two *grama sevak* circles for every individual subject may be too big a task to be adopted immediately. What can be attempted under the existing conditions is to give to the extension officers, besides special training in one field, a general orientation in the various other subjects which are handled by the other extension officers. After this, the several extension officers could be dispersed to live and work in the different areas of a union. The posting could be made on the basis of either the need of an area for a person with particular specialisation, or some other locally derived criteria. Whenever a problem about which the particular extension officer knows little arises, he can consult the specialist extension officer through correspondence or a special visit. While this would make life more rational and work more meaningful, to derive additional advantage through mutual contact it would be advisable if the extension officer has his office or residence in the vicinity of a high school or some other similar educational institution. As stated elsewhere, most union areas today can boast of four to six high schools.

The present 'cash-book-voucher-audit rules', though in themselves of some use in keeping track of the expenditure of money, serve little other purpose. In fact, a large part of the wastage and purposeless application of resources today is due to antiquated tests in expenditure. The criteria in the use of expenditure have to change. Much could be adopted from criteria used in industrial, manufacturing and commercial enterprises. Others have to be newly created and must serve the purpose of productivity in its varied sense, or public good—as understood by the people in whose name all this is being done and to whom ultimately one is accountable. Today there is not even a notion of this and certainly no accountability.

A rather ridiculous and somewhat tragic situation in this regard prevails in the citadels of the government itself. The department which looks after and administers the panchayat system, for instance, would be issuing some 3,000–4,000 government orders every year. In addition, a large number are recorded for future reference. Further, countless more, may be some 10,000–20,000, of memoranda are also sent instructing these bodies and others what to do and what not to do. A very large number of these and probably somewhere around 80 per cent to 90 per cent of the issued Government Orders really deal with trivialities, like making exceptions in permitting an expenditure of Rs.10 or Rs.20 on this item or that or providing sanction for various other little items where the routine instructions have been somewhat overstepped or are unworkable. Even the collectors have to be provided such sanctions. It is not that the government department is cruel, mean or dictatorial. It is not. Largely it is very paternal. But the whole point is whether it for this purpose that India requires its Departments and Secretariat? Is it for this that talented people are taken away from the field and put at the directing levels? What colossal waste this involves—not really so much in terms of money expenditure (even there the procedure for sanctioning a sum of Rs.10 or Rs.20 may cost many times that amount in terms of the sheer time consumed at various levels), but in the diversion of attention and thought from what really was the main job. This department is no isolated phenomenon; it follows the pattern set up by the older government departments. And what are termed as technical departments do no differently. A government technical officer today does little else, except watch that the rules are not breached, that things are sanctioned according to instructions in the book or the file, and sign the various travelling allowances and daily allowances and other bills and accounts which pertain to him. Of course, he also maintains the personal files of his subordinates!

Something requires to be done quite independently of everything else with the accounting system in these offices. The present system was provided a century or more ago. It consists in the maintenance of some 8–10 feet wide cash registers, and probably a large number are kept for various purposes and items in each panchayat union and even in the panchayats. The system was probably very simple when it started; today it is no longer so. It does not help one find out, (experts in accounts would be able to give the proper judgement) with a little labour of a couple of hours, the income and expenditure position of the institution under the various heads at any particular time. The double entry system should really have been adopted years ago. May be there are some insurmountable difficulties. But accounts in these institutions can in no way be more complicated than in industrial or commercial establishments. And at least in Madras, the persons who maintain the union accounts are pretty competent and, knowing accounts as they do, it could not be very difficult for them to switch over to a more manageable and rational system.

There is a terrible ‘status-consciousness’, mainly based on the money factor in the governmental structure of India. It is no new creation of the post-independence era but is an inheritance from the earlier period of British rule. However, with the larger functions of the government today and the much larger number of persons who come in its contact, particularly through the local government system, this status-consciousness has been very much accentuated. It manifests itself in many ways, most of them ridiculous. For instance, differentiation is made even between non-official members of the same body in reimbursing them for travelling and incidental expenses. This prevails all over India. Perhaps in a state like Tamilnadu, with its comparatively egalitarian and equal society—at least in the money sense—it looks more annoying, irksome and anomalous. What earthly reasons can there be to treat elected non-official members of the same body at different footings, the law-makers alone can tell. Perhaps being clothed with power and authority, they really do not have to look back at what they have produced. It saves no money anywhere, but tends to build a truly hierarchical society, where each man is higher, or lower than the other and no two are equal even in such mundane matters. One hears of discrimination by the rural people against the less fortunate amongst them. Any discrimination practised by them is nothing in comparison to what is sanctified and enforced by governmental legality and practice. It is really a wonder that faced with such models, the rural people do as well as they do today at least in the Madras state.

A subject which perhaps consumes the most time and causes constant headaches and alterations in decisions at the state level relates to matters of administrative, technical and supervisory control—particularly over the extension personnel placed at the service of the panchayat unions. The problem is in no sense concerned with the question of official versus non-official relations as in this respect, the elected bodies have no direct control on any of the extension personnel. The problem arises from within the official administrative structure itself. What seems to require constant resolving and readjustment is the nature of relative control to be exercised by the block development officer, the revenue divisional officer and the collector on the one hand and the technical officers at the district and the state levels on the other.

Another problem is one of lack of focus in viewing the present situation and acting according to it. The focus is still in the year 1920, or at the most 1947 or 1950. The same emphasis, the same advice, the same data accumulation. Things, taxes, effort which had meaning half a century or more ago or even perhaps in the year of Independence need no longer have much meaning. This realisation does not dawn easily. For instance, one still emphasises the collection of the vehicle, profession and house tax in the village panchayats. Though the house tax still produces an appreciable amount after much labour, the total collection of the vehicle and profession taxes is, on the average, not even 2 per cent of the total income of most village panchayats. Most probably, the cost of the record-keeping and stationery for these two would be much more than the collection. It is also a psychological and social load on village society. Yet, such is the state of the mind that the performance of the village panchayats is judged by a 'Demand, Collection and Balance Statement' of these three taxes or the number of street lights which any or a group of village panchayats have put.

In the few spheres in which they can operate, the panchayat union councils have done fairly well. It is possible that this is due to advice and suggestions which they have received from their own staff or the superior officers, like the revenue divisional officers, collectors, etc. Their treatment of the village panchayats in their areas seems to be fairly equitable in allocation of funds for rural roads, drinking water facilities, opening of schools, and constructing school buildings, viewing their job over 3–4 years. Furthermore, many of them which could afford this have given the panchayats in their areas a larger share than that prescribed, from the amount of the local cess and other general income.

Further, all things considered, the performance of the village panchayats in Madras in terms of quantitative achievements is quite good; and their efforts to raise additional resources by self-initiated tax effort are appreciable. This is ordinarily not much known or appreciated. Partly, the fault is of the higher coordinating and directing machinery. In the old days, till about 1958, there used to be fairly detailed annual administration reports on the working of village panchayats and the district boards. These were ordinarily available within a year of the year under report. Since 1958, there is no such report at the state level, except a solitary report on the advisory district development councils for the year 1960–61, which has statutorily to be placed on the table of the Madras legislature. Part of the reason is that by the 1958 Act, the collector is the inspector of the panchayats. But even at the district levels, no such report or information seems to have been compiled and made publicly available. The result is that information on panchayats is to be gathered only from hearsay. For instance, it is not really much known, much less realised even at the directing and instructing levels, that over 600 village panchayats have levied development tax in their areas. This is an optional tax which panchayats can levy but its levy is really hedged in by a lot of rules and instructions which have been added during the past four years. Five hundred and fifty of these panchayats are in the district of Coimbatore alone, and some fifty in Tirunelveli. Other districts have only one or two panchayats which levied such tax. The total amount of this tax collected is not known. But in two or three panchayats in the study sample, the amount is as high as Rs.5,000 annually.

The quantitative achievements of the panchayats are not all due to their own efforts. Certain taxes have been levied in their name by the state government and the proceeds made over to them; and a few direct grants from the government (like the House Tax Matching Grant), and several others from or through the panchayat unions are given to the panchayats. The achievements are to be seen in the construction of roads, improvement in drinking water supply and in the ability to construct a building for the school. Depending on the fiscal category of the panchayat union in which the panchayat is situated, except for works meant solely for the scheduled castes, the contribution of the panchayat or the people in its area varies from 20 per cent to 50 per cent of the total cost of the project. This arrangement has probably been detrimental to poor panchayats in what are classified as prosperous panchayat unions. There is a provision that the panchayat union can vary the contribution of a panchayat somewhat, and fulfil the specified contribution quota from the union funds. This is adopted at times, but not as often as required. In the present rigid arrangements of the structure, such relaxation by the panchayat union council would usually be not popular with the majority of members.

Many more jobs have been done by the village panchayats besides the works programme. These relate to the usual traditional items like sanitation, street lights, etc. Not all places have these, but many have. A popular item has been panchayat plantation. This is partly because of the effort of the union agricultural staff. Some panchayats, which have the common land, have brought in as much as fifty acres under panchayat plantation. A variety of fruit and other plants are planted. In areas where vacant land is scarce, as in most parts of Thanjavur, the areas under plantations are in cents of acres. Sometimes such plantations are on the boundaries of roads and lanes.

Many panchayats—perhaps not a great proportion—take up several other activities in the form of health measures, welfare, social education programmes and centres, and some even contribute the optional 2 paisa per school meal they are allowed to contribute. But panchayats are also as much hedged by the statutory and executive instructions as the unions are. Perhaps only a little less so. An instance may be mentioned of a district development council having to pass a resolution requesting the government to allow panchayats to contribute Rs.5 per month to the *Mathar Sangam* from their own funds. Yet the *Mathar Sangam*, though quite purposeful, is itself a creation of a government instruction. Instances of such curious laws and provisions abound in the records of the panchayat bodies.

In an arrangement which is functional and alive, the possibilities in the rural areas of Tamilnadu are large. Practically all panchayat areas have electricity today. This can, and perhaps will, be extended in a few years to practically all villages and most hamlets. Every panchayat union area today has five to six high schools. The boys and girls who study there come largely from the peasant families and about one-third of them are girls. Every union area on an average today has about 450 to 600 persons paid from public revenues. Of them, 300 to 400 may be teachers in schools, about 100 of them women. Village officers number about 150. Though paid very lowly allowances and rather tough and grabbing in their jobs due to a century old tradition, the latter have yet much know-how and experience in the matter of record-keeping and maintenance of accounts. About fifty would be the Community Development and National Extension Service type personnel engaged in extension, technical and engineering work, and another fifty consist of fairly competent clerical and other staff.

With so much talent already available in each area, it is certainly possible to do far more than what goes on. The need is to apply the mind to the problems, to various little innovations which would encourage people to contribute a lot more without additional labour or strain and to be alert to the demands of the situation. One of the things which is perhaps easy to do is to make it possible for the educated people (like school teachers, etc.), to live in the village where they work. The need is of houses and amenities. Today, in every panchayat union, two houses have been built in some distant villages for two women teachers. Two houses, though welcome, solve little. It cannot be always expected that a system which employs a person should build a house for him or her. What is required is to encourage local people to do so by guaranteeing a fair return on their investment. Some village people themselves will come forward to build the house if they know it would be regularly rented and paid for. An allowance towards rent (equal to what would be a fair return for the house to be rented) and some loan, etc., to buy certain items of amenities—like a radio set and the like—would bring most teachers to move from the crowded small towns into the villages where they work. The additional expense involved would be only a fraction to all that is spent today on the salaries of such persons. The good could be immense.

Various other little innovations will have to be thought out or will occur when the system and the people in it really begin to function. In a non-functioning situation, as of today, this is really impossible; or worse, the innovations will be at the level of make-believe. Another question which needs attention is the practice of transferring people from place to place and from job to job. This practice of transferring people was necessary in a colonial administration as the men concerned would either have become so hated as to be useless as agents, or so merged in the given society that they could not be depended upon. As the objective today is no longer a colonial objective, no transfer need be done except on a request of the man himself. Transfers for reasons of promotion have little meaning. If a man is capable of undertaking more responsibility, there is no reason in most cases to move him somewhere else, unless he is to be elevated to the top position in his hierarchy either in his state or in the nation. Why the village or the field is to have those who are considered to be less competent in executive positions and the secretariats and urban centres those who have proved their ability is not clear. In fact, it is detrimental to everything which one aspires to do and professes to do.

Certain questions, which are neither central to problems of democracy nor the functioning of self-governing institutions, have much preoccupied both the exponents and the critics of the panchayat system. These have generated much heat and overshadowed practically everything else in discussion of the present system. Corruption, the problem of election and place of the officers in the panchayat institutions are the three issues which excite great heat.

First, the problem of corruption is not integral to the panchayat system. It did not start with its creation and it operates in the panchayat system, as it operates elsewhere in Indian society. In a few places, it may be as rampant as is claimed and dramatised. In small doses, it perhaps exists in a large number of panchayat bodies. The solution to the problem, however, does not lie within the system, at least today. The present system can only adopt the remedies which are adopted elsewhere in the larger society. An attempt has been made to assess the possibilities of corruption and graft in the present panchayat unions and the village panchayats in the next chapter.

Second, the question of elections and adult franchise. On one extreme, elections are the soul of democracy; at the other, they are leading Indian society to ruin. Much is said about the growth of caste feelings and factionalism. In a way, elections may also have something to do with these. But it is too much of a simplification to endow elections alone with such great devilry. The main issue really is, if a choice is to be made in a deliberate manner by the people to choose a representative, how is such a choice to be made by any individual? How is such a choice made anywhere even in the homeland of the parliamentary system? It is a rare individual who decides such things on his own, even in the ‘homeland’. One decides with one’s fellows, the groups or the clubs one inhabits. One normally votes as one’s friends do: those equally concerned with the particular issue. The situation in the Indian village is that the people have so far little opportunity to belong to the group(s) of their choice. By belonging to one and one predetermined group only, one mostly does what the group decides. This is really the basis of the caste vote. If the aim is to reduce the influence of caste in such matters, one must create more centres of interest and attraction in rural society. The present remedies which are usually advocated in the way of unanimity, etc., may be good in themselves but are really no solution. When people wish to be unanimous, they do not wait for someone to tell them so.

Third. the manner of constituting these bodies. This is not however much discussed openly. A habit seems to have grown that the more serious problems are discussed in private only. It is often said with reference to those who are chosen for these bodies, that they should have a certain minimum educational qualification, the assumption being that such qualification makes one more competent for the job to be done. But the fundamental question is never discussed. Having initially constituted elected bodies and provided the system of adult franchise, why are these bodies and people's representatives tied down by innumerable rules leaving them absolutely no freedom to adjust the system to suit their own inclinations or situations? This question is nowhere discussed, not even by the elected people. The sounder policy should be to grant real 'self-government' in as many spheres as it is considered to be 'safe', and in other spheres to allow some freedom to these bodies to adapt the given system if necessary, after compulsory prior consultation with a more knowledgeable body, may be at the sub-divisional level or at the district. This will of course make the task of those who maintain election records, etc., who prepare annual departmental reports on a stereotype pattern and who collect and compute data somewhat more complex and arduous. But surely all these bodies do not exist for the sake of the recorders of data. They exist for other larger purposes pertaining to the people in their areas and they must begin to operate, the sooner the better, in ways which seem more reasonable and workable to themselves.

Another aspect of panchayat raj that is frequently discussed is the inter-relationship between the officials and the elected members of these bodies. As these bodies are constituted today, there are probably no officers in them at the village and the union *(samiti)* level anywhere in India. In certain areas, officers have some sort of ex-officio membership in the district body.

In a few states, collectors happen to be their ex-officio chairmen. In some others, collectors preside over the standing committees of the district body. In Madras state, the collector is the chairman of the district development council and the personal assistant (panchayat development) to the collector (though not so designated) its secretary.

There is much worrying over this problem even in Madras, where relationships between the collector-chairman and elected members are generally cordial. The problem seems to be getting rather disproportionate attention at the cost of more basic and urgent issues. If the body really functions democratically and members speak up their mind, and everything is recorded, it hardly matters who is the chairman. The only point is that whoever it is, the chairman must act as such and not as a representative of an outside agency. Even when it is not an elective office, the presiding officer, official or non-official, is the chairman of the house over which he presides and has no other role, responsibility, authority or function while in the chair. In Madras, to the extent one can judge from the district development council records, the collector-chairman has filled this role admirably. It is possible that in meetings his presence or manner is somewhat inhibiting. But so could it be even with some elected non-official chairmen. The solution in these matters is to assert one's membership right in the performance of one's functions. The restrictive trend or too many safeguards lead really nowhere.

The same could be said about the alleged inhibiting influence of members of legislature and members of parliament in bodies at the district or the union level. The bodies and their members are to be helped and enabled to feel and become adults. Treating them as infants may satisfy the protectors but can do no good either to them or to Indian society.

By the usual standards of the country and within the structure provided, the present panchayat system in Madras, whether at the village, union or development district level, has not really done too badly. The credit for this is due to both the elected and the officers. The relations amongst them, in spite of some petty differences, squabbles, etc., are on the whole fairly smooth and cordial. They are probably better than anywhere else in India. And the bossing around and arbitrariness of officials by the elected and vice versa is certainly much less at the local levels.

But most of the achievements really did not much require this elaborate structure. With the quantitative provisions which have obtained, the services on their own could have done nearly as much. The district development council or the panchayat union council is not the only mechanism in Madras through which the officials and the non-officials communicate. The communication channels between most of those who can get elected and most members of the local official hierarchy are varied and pretty old. The culture barrier between the local officer and the people is not of such dimensions as to require their meeting in a body to settle questions. This is probably required in certain other states in India, where the distance between the official and the non-official is considerable.

But a serious culture gap, however, is still there. Only it is at a different level. It is the culture gap between the detailed policy making and directing agencies on the one hand and the traditional executing officers and the people on the other. Instead of coming closer, it has widened considerably in recent times. It is this gap which is at the root of the various troubles in the panchayat structure.

At the time of the 1958 enactment, the Minister piloting the Madras Panchayats Bill had stated that after four-five years of the working of the new system, the government would appoint a committee of the legislature to review the working of the system. Such a committee is yet to be appointed. It is perhaps time to constitute such a committee to give a close and detailed look in all aspects of the present panchayat system.

IV

CORRUPTION AND THE PANCHAYAT SYSTEM

(AN ATTEMPT AT MEASUREMENT)

Much is said about the prevalence and increase in corrupt practices amongst those who are concerned with the panchayat system. It is really difficult to vouch for or against such statements, as there is no way to verify all that is said or alleged. A question regarding the number of cases involving embezzlement of panchayat funds was raised in the legislature in 1963. It was found that, on an average, there were ten cases in each district. The question was not replied to, as it had lapsed.[1] In brief, what is alleged may be summed up as under.

MALPRACTICES IN ELECTIONS

It is stated and generally agreed that normally a voter in panchayat elections receives and accepts for going to the polls to record his vote an amount of one or two rupees in village panchayats and Rs.5 to 10 in town panchayats. It is, of course, not claimed by even the most vehement opponents of the panchayat system that this happens in every village and town and to every voter. But what is implied is that it is common and perhaps happens in something like 50 per cent of the contest situations. Even when there are no contests, some money may have passed from the selected individual to the persons who may have to be persuaded to withdraw and/or to their supporters. The actual money transaction is said to be not between the contestant and the voter directly, but through the group leader of the group to which the voter belongs.

The next stage for the play of undue influence and money is claimed in the elections of presidents and vice-presidents of panchayats. The contestants for these positions are supposed to influence the votes of the elected members of panchayats (5–15) through various means. One way obviously would be to appeal to the group and other affinities and loyalties. The cruder form, which is also claimed to obtain and is said to be on the increase, is to bundle together one's potential but uncertain supporters and take them on a somewhat gallivanting tour (or a pilgrimage if the group is so inclined) for the duration between the filing of nomination papers for presidential election and the actual time of election itself. The amounts involved may ordinarily be Rs.100 to Rs.200 per member. Again, it is admitted by those who vehemently believe in such occurrences that this does not happen in every panchayat. The estimate of such occurrences would be in 20 per cent to 50 per cent of the concerned situations.(One principal argument in favour of direct election of the panchayat chiefs is elimination of this practice of 'kidnapping'.)

Yet another stage is the election of the chairman and vice-chairman of the panchayat union. The voters are the panchayat presidents. The charge here is similar to that involving election of panchayat presidents. The amounts involved, however, are said to be far larger. It is said that a successful candidate may spend as much as Rs.40,000 for being elected as the chairman of a panchayat union council. The more normal amounts are said to be Rs.10,000 to Rs.20,000. Again, it is admitted that not all the 375 councils are involved. Yet, the prevalence is supposed to be in larger proportion than in panchayats.

CORRUPTION AMONGST THOSE ELECTED

The main charge of corruption amongst those elected is directed at the presidents of panchayats and the chairmen of panchayat union councils.

Panchayat Presidents

The major avenue of corruption is said to be 'the management of rural works' in the panchayat area by the president. The average annual amount of money spent on works like rural roads, water supply projects, school building, etc., is around Rs.2,500 per panchayat. The charge is that the panchayat president makes a margin of around 10 per cent to 20 per cent in this programme. There are also some other minor avenues like managing of panchayat plantations, etc., where the panchayat president is supposed to make some personal monetary gain. However, it is agreed that normally the total amount which may thus be appropriated by a president would not exceed Rs.500 in a year. It is also admitted that this may not be the practice in more than half the number of panchayats.

Panchayat Union Council Chairmen

The charges against the chairmen are more indirect, though varied. The chairman handles no executive functions and thus no council money. The major charge is of taking advantage of his position as chairman of the council's Appointments Committee and seeking 'money gratification' when any appointment is made. The overwhelming number of such persons is amongst school teachers. Even here new appointments are not very large. The number involved may be about 20 to 30 teachers annually. The average total yearly salary of a teacher is Rs.1,200.

The other charge is concerned with the transfer of teachers within the union. This function is ordinarily performed by the panchayat union commissioner who should keep the chairman informed. Annual transfers, once a year, are handled by a committee composed of the chairman, the commissioner and the deputy inspector of schools. The number of transfers vary from union to union but normally 5 per cent to 15 per cent of the teachers are affected. The point which is made is that the chairman as the more influential person has an opportunity of seeking and receiving monetary gratification in such situations.

Another charge which is surreptitiously made against the chairman and also other elected persons is misbehaviour with the women employees of the union. As quite a large proportion of teachers (about one-third for all rural areas) are women, the implication is of misbehaviour with women teachers.

The other charges against the chairman are concerned with the use of the jeep, etc, undue attention for his own area and his own agricultural fields from the panchayat union extension staff.

Yet another charge is concerned with travelling allowances. The chairman is now allowed a fixed travelling allowance upto Rs.1,200 a year, the exact amount to be decided by the panchayat union council. The total annual expenditure on travelling allowance and daily allowance paid to the elected members in a union ranges between Rs.1,800 and Rs.3,000 including the chairman's fixed travelling allowance. So the misuse can only be in relation to an amount of Rs.600 to Rs.1,800 in each union.

CORRUPTION AMONGST EMPLOYEES

The village panchayats really have little staff and the executive authority there is the panchayat president himself. So charges of corruption there do not apply to such staff.

The school teachers are the largest group of staff. On the average, there are 800 teachers distributed in about sixty to eighty schools in the direct employment of each union except in Kanyakumari, West Ramanathapuram and the Tirunelveli districts. It is only in two matters that the head teacher would have to handle money. One is the school meal programme, involving a government grant of about Rs.600 a year, and the other in the matter of school equipment for which the sum involved would really be paltry Rs.100 a year or so. The charge would be of misappropriation of a portion of these amounts.

The other staff is some twenty-five to thirty persons from the commissioner to the *grama sevak*s who are concerned with the execution of the panchayat union's programmes in the field. Most of them handle small amounts, and a few of them supervise such handling either by their official subordinates or by others over whom they happen to have some supervisory or other technical authority. The charge, which is made usually in a vague but insinuating manner, would be that most of those persons are somehow managing to secure large amounts of 'monetary gratification' through insidious means. The *grama sevaks,* who are the largest in number amongst this group, are supposed to wangle parts of the amounts at their disposal; the extension officers, particularly the extension officer (panchayats) and extension officer (agriculture) are assumed to receive varying amounts from those they come across in their official transactions, the former from the presidents of the panchayats in the course of audit work and the latter in varied situations. There are the usual charges against the engineering personnel. Even the other extension officers, industry and education, the *mukhya sevika*, and other field personnel are supposed to be able to make varying 'packets'. It is believed that the commissioner would be able to get a cut in bigger deals. Then, there are the usual charges of misuse of the jeep.

AN ATTEMPTED MEASUREMENT

As said before, it is difficult to make out the reality of corruption in any particular place. In a climate of corruption, it is really impossible to prove the contrary. Possibly, all that is said is based on facts and is really as widely prevalent as alleged. Still granting this, what could all this amount to quantitatively? A guess at this is being made in what follows.

However, one thing may be said here. Behind all these charges is the assumption that the mere fact of having some authority over money (however small the amounts), material or men, implies some misuse, some appropriation for one's own personal ends. This is an assumption which is on a level with fundamental beliefs. No counter-arguments can convince those who subscribe to such assumptions.

The Teachers

As said earlier, on the average a school annually handles a government grant of about Rs.600 for school meals and about Rs.100 or so for odds and ends. The school meal grant from the government is only a part (60 per cent or less) of the amount meant for school meals. The rest, 40 per cent or more, is to be collected from within the village, (up to half from the panchayat and the rest from the people) and the government grant is really dependent on this collection. It may be noted here that such schools and panchayats where this sum can be collected to the stipulated extent are rare. In some few places, the panchayats do contribute their own share. In still fewer places, the panchayat president and the teacher are able to collect the balance of requirement from the people. In most places this is not so. Even when the panchayat or the panchayat union may wish to meet the whole of the balance, it is not allowed to do so. As the 60 per cent grant is dependent on the prior receipt of the 40 per cent contributions, there is a large scale fixing of accounts. This can only happen with the willing or tacit approval of all concerned at every level who are in any way directly connected with the sponsoring, directing or the administration of the school meals programme.

In such a situation of enforced, and by now deliberate, fixing of accounts and records, any misappropriation would really be a small matter. Even the prevalence of such misappropriation is doubtful. What probably does happen in some places is some recorded inflation in the number of those fed. Largely this is to help in increasing the quantity of the meal to somewhat near the intended quantum of 10 paise worth. It is possible that there are a few instances of some little money, at the most Rs.10 a month, being misappropriated in any such school.

The Grama Sevaks

Much is said for and against the *grama sevak*. Yet, these very claims and counter claims so distort his image that one expects all sorts of impossibilities from his situation. One such is the charge of making money on the sly. Yet the *grama sevak* at the most on an average handles an amount of Rs.700 in subsidies and some Rs.160 annually in expenses in laying demonstration plots and running a demonstration farm in his area. Out of this amount of Rs.860 which passes through his hands, how much the most avaricious of them could make is not too great a job to guess.

The Extension Officer (Panchayats)

The designation extension officer (panchayats) would seem to imply some one who is concerned with the promotion, strengthening and expansion of panchayat activity, but the person so designated is in fact a mere auditor. He is supposed to do quarterly audit for each panchayat and a final audit annually. The average number of panchayats in a union being some thirty-five, he is hardly able to do the quarterly audits. Besides, other higher-ups also have claim on his time and in fact, he is a sort of 'surveillance man' to keep track of such panchayat presidents who have drawn 'large' amounts from their own particular panchayat accounts. Considering the significance of his position over the panchayat presidents, it would be small wonder if he is offered and accepts any little sums from panchayat presidents for all his trouble. How often this happens it is difficult to guess. A sum usually mentioned is Rs.25 for each annual audit.

The Other Extension Officers

The total recurring amount which is spent on the village industries programme in a union is less than Rs.10,000 annually. About a third of this goes on salaries of the technical staff, another one-third on stipends, etc., and the rest Rs.3,000 to Rs.4,000 on contingencies, rents, minor equipment and the like. Similarly out of the Rs.24,500 which can on the average be annually spent on the agricultural programme, some Rs.7,500 is in direct subsidies through the grama sevaks (referred to above), up to some Rs.9,300 for and usually through panchayats on panchayat plantations, etc., and something like Rs.10,000 on indirect subsidies on purchase of pesticides by the cultivators and of equipment from outside for the union office, workers, etc. It is only in a few unions that all this can be spent. Because of the stipulations or the lack of local need for particular schemes, some money invariably remains unspent. The animal husbandry man has a still lesser normal allotment (Rs.2,800 a year), mainly on indirect subsidies for purchase of bulls, etc.

The *mukhya sevika* and her two assistants have still lesser amounts to handle, the government grant for this programme presently being just about Rs.1,000 annually. The lone extension officer (education) has a large territory and still much larger expenditure for his main subject, elementary education. Yet his control over it is nominal; the worst he could do is to frighten some poor teacher; but his load and his depressed position in the Community Development and National Extension Service hierarchy would not much help him even in that.

Engineering Staff and the Commissioner

The only others who are left amongst the officials are the union engineer and his assistants, and the panchayat union commissioner himself. The union engineer is a part of the engineering fraternity, though a very junior member of it. What applies to them could equally apply to him. The panchayat union commissioner being a more stable member of the governmental apparatus—many of them being tahsildars undergoing a minimum of one year service in the panchayat unions before they could expect to be promoted to gazetted rank—must be assumed to operate and behave in a manner similar to any other governmental official at his level. The fact of being in the panchayat union could in no possible way make any difference to whatever is the norm.

Another person who functions through the union, though not exactly on its staff, is the special deputy tahsildar, loans. He helps scrutinise and process the applications for various loans from cultivators which are disbursed by the commissioner in his capacity as the block development officer. Here also, the usual processes must operate. In fact, the union structure has little to do with the loans programme, and the loans disbursed do not enter the budget and accounts of the union.

From the above, it may be inferred that even if, assuming the worst, everyone on the staff of the union is interested and prone to the acceptance of monetary gratification, quantitatively the problem is not colossal as it is usually presented. Even if everyone is making whatever one can, the amount would not be beyond Rs.10,000 to Rs.15,000 a year. This would be out of a total budget of Rs.6 to 8 lakhs, some two-thirds of which is accounted by salaries. Ethically, of course, it is another matter. Its moral consequences on society are not so easily measurable. But there one cannot really complain. The root sources of any corruption do not lie in the offices of the panchayat union councils or of panchayats. At least some of its roots originate in the arrangements which have been determined by people outside these bodies. The fiscal arrangements for the school meal programme is only one such, though rather glaring, instance.

THE ELECTED REPRESENTATIVES

Now one must return to the representatives of the people. Starting from the assumption of large scale expenditure in getting elected, it is an easy walk over to the deduction that each one who is so elected must consequently be trying to get as much as he could through the position he holds. If not, how could he afford it, or why would he wish to be in these bodies? Further, the usual sentiment which is also much voiced by those who adorn these bodies (that they have little power and authority to do anything) only reinforces the conclusion that in the absence of other power such people must be making money. The conclusion, in a way, is rather tempting and on the surface is in tune with the popular assumptions of the present.

To take certain specific changes first—according to the critics, a president of a panchayat spends a considerable amount for obtaining his office. The amount may roughly be Rs.2,000. According to the same critics, the president who would have backed a successful chairman in the panchayat union council would have received a more or less similar amount for his support. This probably balances the expenditure. The president who backed the defeated contestant in the panchayat union council race, would evidently be the sufferer. Unable to balance his expenses, he must make money by other means. On the other hand, the president backing a successful chairman is also supposed to make a monetary gain out of his office, either because of opportunity, or because everyone else is also supposed to be making money. Still the amounts handled by the panchayat president are not really so very large and most of the income is committed. The works programme does provide some opportunity. Yet how much one could make, if so inclined, out of works which average about Rs.2,500 a year is easy to work out. In any case, it would not be any more than what would be made quite lawfully by a contractor. And to make that much one must have been nearly as competent and work pretty hard.

Now remains the chairman. An appreciable number of chairmen of the panchayat unions are men of means. Many of them own personal cars or other vehicles. It is possible that some of them accept monetary gratification for services rendered to those who are under their control, like the school teachers or others who may somehow be able to derive benefit from whatever authority they have. Yet, it is really far-fetched to believe that a chairman who has spent Rs.40,000 for his election, or even half that sum, can make it up by collecting or forcing bribes in a period of five years for which he is elected. And one has to remember that ordinarily the aim of any such person would be to get elected again. A chairman who enforces a cut of even Rs.50 a year from all or most persons who come under his purview from time to time can hardly expect to be a chairman next time. If he does, the acceptable norms or the sense of terror must be such that one knows little about them.

It is possible that most men who get elected to these positions by incurring great expense in the process must somehow make up what they have spent. (It may incidentally be stated that in the 1965 panchayat election, 40.5 per cent of the panchayat members, 64.2 per cent of the panchayat presidents and 22 per cent of the panchayat union council chairmen were returned without an open contest.) This would be true of such men here as of men anywhere else. But this axiom does not really mean that they do it in the institutions under their charge. This analogy, if taken a little further to state and national levels, would indicate its absurdity. Men who can afford to incur such expense are evidently men of influence, if not exactly of means, in their own rights. Such elected status would further enhance their standing and consequently the area of influence. Influential men, when so inclined, can and do make money today; or better still receive money from their supporters and allies and patrons. Nothing different would happen to them simply because they belonged to these bodies. The mere fact that these bodies are called panchayats makes no difference.

CAUSES AND POSSIBLE REMEDIES

Misuse of authority and proneness to ‘monetary gratification’ no doubt exist in the present panchayat system, as they exist elsewhere in public life. Still it is probably much less not only quantitatively but also proportionately to the business transacted in these bodies than elsewhere at more elevated levels. Certainly it is no more. Not really due to any special virtue amongst people who function in the panchayat system, though they certainly may be more virtuous or their vices at least more bound. The situations and the circumstances in which they operate do not encourage limitless vice. Much of the misuse really derives from the external bindings which abound in the system and deaden more immediate and local correction and vigilance. The way the system is bound, thus killing any scope for initiative, enterprise and ingenuity is a sure way of driving it to absorb the prevalent urban public norms. The norms and the social control of its own society are rendered practically impotent by the alien idiom which governs these bodies.

It could be said that if the system is so bound and does offer little opportunity either for initiating what one may wish to do in the way of public good or for amassing wealth, why is it that many rural people wish to get into these bodies? Nobody asks them to be there! They are not employees; they are not like the school teachers or the staff of the Community Development and National Extension Service who have to eke out a living, however much they may be indifferent or even at times detest what they have to do! It is very simple. They can leave these bodies! But can they?

However bound, these are the bodies which exist. And they are certainly bodies of status even in the present. It must be realised that it is not possible for those who aspire either to status—family or personal—or public life to shun any such place. If they do, others with whom they are not so friendly would be there. And this could never be allowed without a challenge. Letting go a position of status would be sheer social suicide. One could only afford to ignore such bodies if one could aspire to greater status by ignoring them. Such occurrences of course have happened in this country, but quite in another time. Further, the situation today is perhaps not as compelling to initiate such boycott.

To get into these bodies one must adopt all the usual means which are available to a contestant. Having decided to be in the contest, one operates the way others operate in one's area. Else, one retires in disgust. So follow the group influences, the bundling of one's possible supporters to what is termed as 'Bharat Darshan' tours, the spending of even Rs.40,000 for some chairmanship. It is all part of a larger and much more powerful pattern. Because of some rather romantic ideas associated with the terms 'panchayat' or 'simple rural people', one seems to cling to the hope that here at least things would happen differently, that a new haven would arise. But how could that really be? If such were the situation, the laws and the procedure would not be what they are today. These would have been the first things which the rural leaders and people would have altered and remoulded. They would then have also told those who instruct them about what to do and how to do and when to do and where to get off. They have not done so. They accepted to play the game according to the rules and the idiom which were provided. If the implementation of such rules and idiom looks rather ugly on a rural landscape, this is certainly not their fault. Their fault may be in their agreeing to play the game at all, but this is what really one wanted them to do.

The foregoing does not imply that there is no problem of corruption, misuse of status and influence or misbehaviour amongst those who function in the panchayat bodies, either as officials or as the elected. It also does not condone instances of such practices as may prevail in the present. Nor is it the intention to assert that none of this could be cured or reduced without a fundamental re-organisation. The foregoing is only an attempt to quantify what is said to exist, and to indicate some of the factors which encourage or assist such occurrences.

The major cause of such occurrences and the remedy thereof is related to the problem of accountability. If there were clear channels of accountability, and such persons to whom one was legally and procedurally accountable exercised their authority, there can be little doubt that much of today's corruption will disappear. The position today is that the accountability of every person in the panchayat system—be he an elected or an official—is really outside the local situation. Even where it lies it is really not very clear or specific.

There are two ways in which a change could be brought about. One is to streamline the present channels, inculcate firmness and a sense of right and wrong amongst those who have to exercise such authority. This, of course, is in the manner of centralised functioning. Yet if nothing different can or should happen this need be no bad way out of the present situation. Whatever corruption, etc., would still continue would either be due to failings in the exercise of such authority or due to the nature of the human beings concerned.

The other way out is to create accountability at the local levels themselves. In the theory of the panchayat system, such local accountability is indeed an assumption even today. But the reality is not so. Accountability (if it were to operate) would imply that the officials are wholly accountable to the elected head of the institution or its appropriate committee. They would be free to note their dissent, but would follow the given instructions. The head or the relevant body would be accountable to the next larger body, and this latter body to still wider bodies. If this were to obtain both the elected and the officials would operate within the local limits of permissibility. In such an arrangement, the aggrieved would also have an easy opportunity to express his or her grievance. And whatever is socially agreed to as a grievance would undoubtedly receive redress.

Yet the risk of the latter arrangement is that many of the dealings which are termed as corrupt today may no longer be so treated by particular areas. Or realising the futility and unreasonableness of particular definitions, certain areas may decide to legitimise certain modes of behaviour hitherto branded as corrupt. For instance, a village panchayat where the president of the panchayat is allowed or asked to execute the construction of a road or some other work, may decide to give him an honorarium in consideration of the loss to his personal occupation or as compensation for the extra effort he has to put in. Elsewhere, instead of giving a money honorarium, such a person may be rewarded in some other manner: for instance, in carving his name on some building or writing it on some roll of honour. The end result of such decision would be that certain things which are considered illegitimate today may not be so considered in some or all areas.

Regarding issues of misbehaviour, local accountability would certainly give the best possible opportunity to the aggrieved against the offending person. This would be true whether the aggrieved and the offender both belong to the same group, (i.e., either the officials or the elected) or to different groups (one to the official and the other to the elected). In the case of misbehaviour with a teacher, such a teacher would have all the opportunity to see that justice was done and that such misbehaviour ceased. All this assumes that the ordinary rural people also have their own codes of right and wrong, they know how to differentiate between ethical and non-ethical behaviour, and that the aggrieved accepts them. If this is not so, any such arrangement would certainly be futile.

Regarding favouritism and manifestation of personal preferences, the problem may be more intricate. It is possible that what may be considered as favouritism—like helping someone from one's kin or caste or class group—may not be so considered in many rural areas. It may, in fact, initially be termed as a duty and the only right conduct for a person in authority. Still, by the canons of local values, justice would be done. If the wish were to change such values and make them uniform in all areas the need is of patience, alertness and of a continuing dialogue in functioning situations. A change may come if in practice the change appears desirable to the larger society.

Note

1. *G.O. 1321*, R.D. & L.A., 8th July 1963.

V

THE PROBLEM

Much is known and said about the ancient nature of the panchayat system in rural India. But it is much less realised that such village bodies, though ancient in origin, existed as functioning entities in most parts of India—both north and south—till recent times. Notwithstanding all the political and economic changes which had disturbed Indian society in the thirteenth to eighteenth centuries, these bodies were in every sense, in matters of all internal management relating to their respective areas and populace, governments of their areas around the year 1800.[1] Their conduct was based on customary usage, and so in many respects differed from one area to another. Their sovereignty was bound internally by *Dharma,* and externally by the political power which held sway over the larger territory. To the extent that the political power conformed to custom and obeyed *Dharma*, these bodies and the people in their areas felt more free, were economically prosperous and lived in relative harmony. At times when such political power became more demanding, grabbing or oppressive (due to external pressures or because of its alien origin) and became less certain of its rule, these bodies became correspondingly depressed and consequently rather rigid and people in their charge less free. Even then the bodies stayed, governed their areas, and looked after all functions—including the overall management of land and its occasional redivision where such practice prevailed[2]—which required to be looked after publicly.

The custom and the *Dharma*, as understood and applied around 1800, is vastly different to what prevailed in the latter part of the 19th and the early 20th centuries. For instance, the rights of the actual cultivator were far superior both over the produce and the land than what these were in later decades till the present. Similarly, the economic repression and exploitation of what are termed as the lower castes seems to have been rare. A constant economic or group exploitation of certain castes appears to be of somewhat later date.

The material on the state of Indian society in the years 1750–1830 or so is scattered in voluminous records relating to that period. This has to have a fresh and careful unbiased look. Far too many things have been taken for granted on the authority of historians and writers, most of them dating from about 1860.[3]

It would be claimed by most scholars that, even if one could find material in the British Collectorate and other records of the late eighteenth and early nineteenth century seeming to disprove or seriously to alter notions, beliefs and views which have been held for a century past, how is one to accept what such records indicate. The scholars' point here is that the writings and observations of mere administrators who had no training of any sort in the modern disciplines of social science cannot be acceptable in such matters. The scholars, however, seem to have forgotten the origin of the writing of current Indian history. The history, the beliefs and the notions which prevail amongst the scholars and the intelligentsia themselves are based on a particular selectivity of these very records. The only other contributory records which have led to the presently held deductions about the nature and state of Indian Society in the eighteenth and early nineteenth century are the scriptural texts of which the Brahmins were the guardians. But practically all these Brahminical texts are works of theory and ideology, or commentaries on them. Like all theories and ideologies, these presented what was considered as 'desirable' by their authors and limited followers. Even if these had really become reality in any large areas—and this is a very doubtful 'if' keeping in view the nature of change and alteration which comes in all theories and ideologies as time passes—it would be self-deception to believe that such reality had existed unaltered for several centuries and millennia. The reality of the eighteenth century was based on its own ideas and requirements. Even where the Brahmins ruled, as the Peshwas effectively did in Maharashtra for many decades, the social reality did not flow from the Brahmins, but from usage.[4]

The village in 1800, both in south and north India, though varied in its land management—from the *Samudayam* to specific individual proprietorship, and other institutional and technological practices—had at least this much in common: that it maintained its own land records and had the village *karnam* (the *patwari* in the north) and several other professional persons known as 'village servants', to render it professional service. Their number seems to have varied from area to area, and some villages had more than one person in a particular professional category and some others shared one or two of the servants with another nearby village. All these persons were maintained and paid by the village according to somewhat differing arrangements, the more usual practice being their individual share—in terms of revenue or proportion of produce being treated as the first charge on revenue and all agricultural produce.

Starting from relatively disturbed political conditions and consequent tyranny around 1750, the years 1750 to 1840 were the years of disruption and decline; and in most areas the village panchayat system disappeared for all practical purposes. The two main causes were the taking over of the total revenue along with the village *karnam,* the village land records and the village police by the overall political power of the time, i.e., the British rulers of India in the areas under their direct control, and by their dependent native rulers in their own areas in due time; and the second, the determining and fixing of the land tax (now called as land revenue) at around 50 per cent of the gross agricultural produce in most parts of India and in all areas coming under the control of the Madras presidency.

Within a few years after such determining and fixing of the tax, the land revenue is commuted into a money tax on the basis of officially determined average prices, etc. Such commutation took place throughout the country—in certain areas a little earlier, in others somewhat later.

It may not be correct to suggest that the taking over of around 50 per cent of the gross agricultural produce as land revenue by the political power was an altogether new innovation introduced in India by the British rulers. The practice and its basic theoretical formulation is claimed by British researchers of the late eighteenth century to be earlier than the British rule and is said to have its origin during the reign of Allahuddin Khilji (1300 A.D.).[5] Whatever may have been the assessment imposed on land by Allahuddin Khilji or other late rulers of Delhi, in the Tamil areas of the Madras presidency and even in most other districts, such an exaction was unheard of till the mid-eighteenth century. The southern districts of Tamilnadu, like Ramnad and Tirunelveli, did not have much taste of it even till 1800.

One of the major contributions of the British to India was to give this exaction legality, to work out its details for practically every village, hamlet and most fields and to enforce it rigorously, in the language of British rule 'without fear or favour'. This they did after great and profound deliberations which ended in favour of 'what the natives were accustomed to' and what were assumed to be the rightful share of the sovereign political power 'as the supreme landlord' of each patch of land and field in India. Controversies certainly raged, even after the decision and continued along with its implementation in the field. Some modifications in the rates of assessment began to be made around 1860, after it was established that the land revenue should, on the average, be equal to half the net produce and not to exceed 33 per cent of the gross produce for dry lands and 40 per cent for wet lands.[6]

A land revenue of 50 per cent had its inevitable consequences. Accompanied by the need to subordinate the people to the will of an alien political power, it depressed society in every conceivable manner. Economic depression followed as a consequence. The 50 per cent land tax became at times 70 per cent to 80 per cent of the gross produce.[7] Wholesale desertion of land took place; the condition of the labourer seemed somewhat more bearable as he was less bound and could more freely migrate from place to place. Agriculture fell into ruins. Economic depression resulted and was again and again followed by famines and unheard of rise in prices. This persisted in the Madras presidency for a century and more.

The ancient village system disappeared under such destructive impact. Still, remnants of the *samudayam* (meaning community) villages continued here and there till the beginning of the present century. But these were *samudayam* in form only, which also disappeared by 1940 in the remaining villages in the district of Thanjavur. The *samudayam* concept and manner of functioning for limited purposes, however, are still traceable in the form of *Mahimai* groups and associations in some areas like Ramnad and Madurai and in the form of more varied caste assemblies and village groups around local temples. An account, from a recent study, of the functioning of such residual community institutions is given at Appendix 5.

The present governmental structure in India originated some 180 years ago in the presidencies of Madras, Bengal and Bombay. As years passed and experience accumulated, the structure came to be defined in the minutest detail by written instructions and orders of the government, which were from time to time classified into the various manuals, standing orders and the like. Legislative enactments (earlier known as the regulations) also grew but their bulk and weight was still manageable till the end of the nineteenth century. Most of the basic principles and the resulting structure and procedure of governance in India were well settled by about 1840 or 1850. The primary provisions of documents like the standing orders of the Board of Revenue in Madras, really date back to this time. Since then, it has largely been a job of refinement, rationalisation, additions and subtractions to what was laid down over a century and more ago. The basic regulations regarding the job of the district collector, or the village *munsif* or *karnam* were enacted in Madras in the years 1800–1820. With minor variations—and little of these after 1900—these still hold the field. Similarly the secretarial system which India has today is a product of the earlier part of the nineteenth century with some variations and rationalisation here and there in the years before 1900. After that the main change is only in the personnel, the Indians replacing the British over a period of fifty years. Being by nature rather cautious, at times a hair-splitter, the educated Indian, by the time he came to occupy positions of authority in the governmental structure, was much more alienated from his society and his contribution to the system has been largely in the plugging of 'loopholes' making the structure even more restrictive.

The structure, however, to begin with had a specific purpose. It was to enable an alien nation to rule over this country in relative peace and quiet and also to present a facade of fairplay and justice between man and man to the ruled. Not being really able or willing to understand the relationships and structure of Indian society[8], the British, once in India, wholly subjugated, stratified and legalised the situation which had come into being after their occupation or conquest. It is this badly mauled and disrupted society that they tried to preserve as some exotic being with their law and administration for over a hundred years.

But even this disrupted society was no exotic creature, no mummified corpse. It was still living, at least its living men and women still tried to operate in the manner of human beings. This, however, became difficult for a great many. The structure provided them no leeway to feel human, to express themselves. Such inability and frustration led to the usual behaviour patterns of people so situated which are fairly familiar to modern times. Society ate its own children, certainly those who could not much protest. The wholesale uprooting of people from their homes and their lands either due to direct governmental assessment or because of rack renting, has already been referred to. The land and the houses, at least the house sites, did not disappear from the country; only these went to other people, those who survived the general cataclysm. This is really not to blame anybody, neither the British nor the Indian people. It is only an attempt to understand present-day Indian dilemmas against the historical background of a two hundred year old legacy.

By the beginning of the present century, the situation began to change. The hold of the British slackened, the possession of India became less worthwhile though still prestigious, and the temper of the country warmed. Other ways of pacification were tried, attempts made to import newer ideas of the West, even concessions made to political and other demands. The present-day local statutory bodies, the various developmental departments, the cooperatives, the registered voluntary associations are all really a product of this later time. Initially though free to coin their idiom and procedure, yet all these had an unbreakable link with the governmental structure. The governmental structure, as separate from the legislatures, however, underwent little change. Whatever change there was as in the 1930s and 1940s, was towards further restrictiveness in every sphere not only in its relationship with the local bodies.

The Indian political movement, however, of which the Independence in 1947 is an offspring, did not worry about such restrictiveness. To it, the whole British imposed system was an evil, something like a design by the Devil. In its view, when India attained independence, the whole had to go lock, stock and barrel! This is what the country thought and believed when it believed in the possibility of the achievement of independence at all. Many people continued to believe this even after 1947.

The problem of the panchayat structure is really intertwined with the problems of the governmental structure. So are the problems of development. It should have been possible if the country had handled one problem at a time to put some sense in the situation. A mixing together of what really can never mix, given the existing constituents, has led to limitless mess. Each of these now is like a stone round the other's neck, making most functioning, if not well nigh impossible, at least terribly slow and wasteful of human talent and capacity.

Left to itself, it may have been possible for the governmental structure, when whipped sufficiently by public opinion and consequently its elected masters, to deliver in time some bits of development. To achieve this, had there been sufficient pressure, it would have strained itself to the utmost. Such straining would have led to its own enlightenment with a consequent reform or replacement of the structure. If it had failed, it would have gone anyway. The problem would have been solved one way or the other.

The other way out was to change the structure by a conscious decision, if not in 1947 when one could claim the country was much too occupied, at least in 1950. It is not as if the people in the structure stood in the way. Perhaps the nation's will had failed.

Then the country started on the road to development. In the field of rural development, it started with the Community Development and National Extension Service scheme. The programme after a little while seems to have lost any moorings it ever had. The political apparatus got panicky. Committees were appointed and studies were initiated. The recommendation was made for statutorily associating the people with the Community Development and National Extension Service. In itself that might not have been too bad a decision. But there it ended. It would not be fair to imply that the august committee which advocated this arrangement and those who pursued its report and recommended it to the nation were oblivious of other road blocks. They could not really have been so, being men of eminence and experience. Yet they left all that to the course of events. In comparison, the Commission on Decentralisation in 1909 and the then Government of India had shown more care and foresight in specifying the enabling nature of the law which they recommended for the local bodies.

But it is not as if foresight was so absolutely lacking. It was not really so. In Madras itself, two very responsible sections of opinion had in their differing manner expressed doubt about the arrangements which were being made. One of the groups was of the officials of the Madras government who, expressing their views on the committee on Plan Project's recommendations, thought that in the beginning 'productive development' (meaning Community Development and National Extension Service) should stay with the government and only advisory association of panchayat unions was desirable in the matter, while 'social service development' (education, health, welfare, communication, etc.) should go to the panchayat unions wholly. The other group, that of the legislative critics of the government, like Sri C.N. Annadurai, expressed similar views though from differing angles of preservation of the initiative and freedom of these bodies.

The major failure of the political structure in India today is at the level of responsibility and accountability. If this is realised, everything else may correct itself. Responsibility does not really mean an obedience to orders and instructions and conforming to the laid down paths. Responsibility implies fulfilling the purposes in view or the task assigned.

The failures today, particularly in the panchayat structure, are in the matter of arrangements and not due to those who work in them. Had the arrangements been appropriate, even the most rusted and indolent set of people could accomplish a fairly good job. Most of them today are doing what they are asked to do and allowed to do. And the whole amounts to very little. Whatever is happening today is largely a function of the quantitative input and terribly wasteful at that. Of course, the structure preserves the *status quo* and maintains law and order.

However, if maintenance of the *status quo* and the defence of the country alone are the job of the structure, it may have carried on with it, with *ad hoc* deviations and amendments, perhaps indefinitely. But the nation aspired for other things or was persuaded to. But to reach these aspirations, one requires the right instrumentalities. This India did not create. Having committed a grievous error, its rulers also lost patience a little too quickly and did not give the old instrumentalities or the new cadres, which were in certain situations created, time enough to adjust themselves, to modify their methods and procedures to fit the tasks. Instead, it mixed up the whole thing, the old instrumentalities, the new cadres, the people's representatives and put them in the vice of the 150-year-old superstructure. Wherever the persons involved are more agitated and flushed, they come to blows or curse one another; where they are resigned to everything (and the doses of cynicism are rather large, as in many places in the north) nothing ever moves; and where they are more practical and plodding, they bend the instrumentalities to the extent they can, without smashing the thing altogether, or circumvent it mutually so that at least something is done, things at least keep on the move. This latter is more or less the position in the Madras state. A shared common idiom amongst most people at the local levels and the lack of a major culture gap between the agents of the governmental structure and the people alone makes this possible. But this is really no workable arrangement.

As said earlier, there is no real harm in directing and doing everything from a central place. Only it assumes the presence of the right instrumentalities, the capacity of the centre to use them in the manner desired and to attend to each situation individually. If the quantities involved make direction and attention from one central place cumbersome or impossible, one can split the centre or create sub-centres—as many as one wishes—and man them with those in whose capacity and judgement one can lay trust. Nobody—at least not the people of India and not certainly the people of Madras—hinders the making of such arrangements. It is due to their own will or failing that the rulers in Delhi or the rulers in Madras and other states do not think of such arrangements.

If for some compelling reasons—political, spiritual, sentimental or any other—statutory local bodies are an inevitable part of the landscape of India, then they have to function as such. They will do all that they choose and which is not specifically prohibited by the basic laws. They will be bound by their good sense and the first few pages of the Indian Constitution. All else, though useful as a model and as suggestions born out of wisdom and experience, can have no binding value. That is, if the bodies, true to the basic principle of their existence, are self-governing bodies within their sphere. Their responsibility is to the people in their area to whom only they are accountable for everything they do within their unprohibited domain. If they encroach beyond them only the central authority has a right to intervene.

Self-government at any level can function in no other way. All other ways are either only to reduce the institution into an agency of the outsider or to make it irresponsible. Self-government assumes accountability to the people to whom it refers. Otherwise it has no meaning.

The internal problems of the panchayat bodies today are wholly due to indecision in this sphere. What one so much hears today about malpractices here and there, arbitrariness, or non-functioning of panchayat bodies arises from a misunderstanding of the nature of these bodies and their role. Furthermore, many of their problems today are because of the thrusting of an alien idiom on them. Either it paralyses or it leads them to make a mockery of themselves. If they are to function, they can only function with the idiom of their own society. This alone will make them accountable to people whom they represent. The people in their areas today cannot hold them accountable not only because they are not so accountable in the Acts and the rules and the executive instructions, but also because they have no comprehension of the manner of their functioning. To them everything these bodies and their masters do is a bit of a riddle, if not wholly wrong. To expect them to take these bodies to task in the present situation is unthinkable. The people can do that only when they know they are the final arbiters in the particular situation.

But if such self-government were to operate, the 'leaders' of opinion, the trainers and the educators would not like it. It may not seem to them right. This is the alienation in Indian society. So far those with power and influence have handled such situations by not allowing people to engage in any open social or community activity. Also at times, they have tried to train them. Consequences both ways have been disastrous. Instead of making them free such training has made them more subordinate and inhibited or altogether crafty. Most of the training part of the panchayat system in Madras and elsewhere in fact has done more harm than any other comparable aspect of the panchayat programme. It has helped in the crushing of whatever little interest and initiative any of the persons had before they got engulfed in the everlasting confusion, do's and don'ts and exhortations for carefulness and caution which has constantly poured from the trainers. The result today is that in the Madras panchayat system, even the panchayat union council chairmen are not sure if they can really sit down in their councils and consider and review what has been achieved and what not in terms of the basic objectives of the Preamble of the 1958 Act itself and to locate and state the reasons thereof. They feel and they are told that this really is not their domain. Perhaps it is unlawful too. (Such a view and impression is not limited to a few chairmen. It is widely shared by even such persons who are amongst the founding-fathers of the present Madras panchayat system. The situation really is in no way different in other states.)

Such state of affairs really needs sitting back and looking into by those who are competent and have some say in the taking of decisions regarding the affairs of the country.

To conclude, over a hundred and fifty years ago the British rulers in India tried to create a governmental superstructure on the foundations of a society, to whose disruption they had contributed in no small manner and one which has since been in much agony. They built the structure brick by brick and added all the imperial trappings. The agony in course of time became almost a part of the life of the Indian people and occasionally burst its bounds here and there. Healers of all types applied their remedies on the wounds. It probably gave relief to a few. Then out of somewhere there arose a hope in the person of Mahatma Gandhi, a promise that the ordeal was soon going to be over. Half-believingly, many found succour in this promise.

Such newly found hope had little to do with this or that philosophy of government; it even did not much worry itself over the sentimentality which has been poured day in and day out over words like panchayats. When such promise was symbolised or expressed by someone whom they loved, admired and believed in, it only signified a society where people were free and relieved of the unbounded suffocation, and restrictiveness which the alien idiom had perpetrated. They did not much mind whether they were to be governed and administered from one capital or 5,00,000. What they certainly did care and understood was that it would be governed by what was considered to be right and good by the standards and values of their society and that the administrators and the governors would be amenable and responsive to public opinion and accountable for the functions entrusted to them.

If the country has chosen to adopt the panchayat system for matters of local governance, then the panchayats must be given freedom to operate in the manner of their individual choice and they must be helped to feel and become adult. It is likely that when this is allowed, they may at times and places act arbitrarily. Ordinarily this seldom happens; a locally-based system which has to function and deliver certain results to a local community cannot afford to be accused with arbitrariness by those to whom it is accountable. Arbitrariness would lead to stagnation. Yet such a situation can arise. The way out is a socio-political educative programme where there can be a dialogue between the educators and the people. The present stress on concepts like duty, due procedure and proper channels have to change in the direction of assertion, action and responsibility. The word 'duty' really implies assertion, action and responsibility but somehow it has been so twisted in recent usage that it has begun to be synonymous with 'obedience'. It is such distortion which has corroded practically all the social checks. These have to be reconstructed. But unnecessary protection and restrictiveness all-round is no way to build social checks. The habit of a sheltered life of the middle-classes and urban society have little in common with the principles and assumptions of local government. Its affinity is with the peasant sturdiness. And that can only happen when it is allowed to grow according to its nature and not as a cultured hot-house plant.

The combining of local self-government with national and state sponsored schemes, as it has turned out, was an unwise governmental decision. One or the other must be modified in the process of functioning. If no major modification is desirable in the developmental scheme, it must be entrusted to an actual subordinate and qualified unit. To thrust it on the self-governing unit as a scheme is to destroy both. That certainly cannot be the aim in view. The self-governing unit in addition to what is termed as 'social development' in Madras, may do productive development also. But that is its own lookout and its own ultimate decision. Regarding the structure of law which has to be their frame of reference, the first must be the principles of the Indian Constitution. These bind them in the same manner as they bind the government in the centre and the states. The second can be some specific enactment which provides them legality, defines their sphere and specifies the sources from which they will derive their major income. The present Madras Panchayats Act of 1958 does specify the financial arrangements fairly well. In terms of the enactment, a simplified version of the present Act, removing the restrictive provisions which have crept into it during the last thirty-five to forty years of decline, can serve to start with. Perhaps the Act of 1920 and the rules framed under it at that time with the deletion of any anachronism and phrases, which no longer have any relevance, may do equally well. What prevails at the present is not a workable arrangement. It cannot stand still and has to move either towards greater freedom and initiative to the bodies or to its further whittling down. The only way to keep it still is a tricky game between the government and the bodies where no side wins. Such a game may be absorbing but then one must confess that that is now the only purpose of what has begun to be called the ‘panchayat raj’ structure.

It must be added that if a decision was to be taken to permit self-government, in however limited a sphere, to the panchayat bodies such a decision could only be taken after understanding its full implications in terms of policy and operation and the impact of consequent functioning on the larger governmental structure. A clear shared realisation of this at the levels of the government authority has been conspicuously absent even in the days of the Decentralisation Commission and in the debate and the enthusiasm which it fostered. Perhaps isolated individuals in the governmental hierarchy, like Montagu, did visualise the primary and urgent contradictions which would arise from such a step. Yet nothing was specifically laid down which could have been adopted to resolve the contradictions as they arose. The result was that the very functioning of the panchayat institutions under the Madras legislation of 1920 in a period of ten years laid bare the impasse which had arrived. That particular impasse was resolved against the panchayat bodies by a series of mostly well premeditated steps and through a process of stunning these bodies; the stage finally reached has been assumed to be one in which the system had existed all the time. Yet even if the impasse had resolved in their favour, because of their own individual and collective strength and vigour, the consequences though perhaps happier would have been no less complex.

In any country, most of the primary governmental forms must flow from a central theme and principle. In whatever fields there is permissibility of varied forms, those fields have to be demarcated from the governmental structure in a manner that the organisational and administrative arrangements in them do not unduly impinge on the mode of functioning of the central governmental machinery. In most countries where the governmental forms have been arrived at through a continuously evolving process, and where they are based on native genius and principles, this does not cause any great worry. Even there, there may be various shifts in the functional or power relationships between the central government and the local authorities. But in essence such an occurrence is something very routine, and would hardly cause a ripple in the ordinary life of the people and consequently there is little talk of decentralisation in such countries outside the portals of the government and the local bodies. In India it is not so.

In India the present governmental forms, notwithstanding bits of native trappings which are found attached to them, have flowed from altogether alien themes and principles and imperial or colonial needs. This is not to pass any judgement on what exists. But one thing needs to be realised.

If self-government is allowed in any institution and if those who have to manage it as people's representatives or as staff are not very effectively brought up in the idiom of the central structure, they will from the day they begin to operate do most things very differently. This in time may create, even when there was general agreement between the self-governing institutions and the central authority on priorities and major purposes, a great chasm in their functioning processes.(It may perhaps be possible to demarcate areas in a way that no harm can come to either and the society which they serve.) If instead, those who run these institutions have been brought up in the idiom of the central structure, though there may be disputes in the matter of power and resources, they will more or less operate in the manner of the central structure. But the fact of their doing so, even when it gives more substantial quantitative results, would imply that self-government of the institution is limited to them and has little to do with the people whom they are expected to represent. Hence their real accountability would lie elsewhere, and not with the people, till such time that the people themselves have been brought up to understand and appreciate (and have as a corollary totally forgotten their own) the idiom and manner of these bodies, of those who run them, and thus have achieved an unfettered emotional and intellectual link with the running of the country itself.

Whether it is the people who have so to change or it is the superstructure which has to get in tune with the people is the dilemma of self-government in present day India. In this, there are no short cuts and drawing room arrangements. Practically all these have been tried. Whatever decision is made to break the impasse has to be very clearly conceived and sharply defined.

Note

1. *Memorandum of the improvements in the Administration of India during the last thirty years*—Prepared at the instance of the Court of Proprietors of the East India Company, January 1858. See also various proceedings and minutes of the governments of Bengal, Madras and Bombay presidencies, particularly the minute of the Governor General (20th January 1832) on the question of the village system, the several variations in different parts of the country, the question of the rate of assessment, etc.

2. The practice even continued in some areas of the Madras state till the end of the nineteenth century. See Appendix 4 for a description of such distribution details in villages in the Thanjavur district.

3. For an account of how Indian History began to be written, the reader is referred to 'James Mill, Monstuart Elphinstone and the History of India' by Professor C.H. Philips in *Historians of India,*

Pakistan and Ceylon, Oxford University Press 1961. Also *Sketches of the Hindoos* by Q. Craufurd (1790) may be read for a description of South Indian Society around this time.

4. The opinion that 'the power of the Brahmins is doubled since they lost the country' told to Elphinstone (Minutes 26th March 1825) by a Maratha peasant, though in no sense conclusive, is perhaps nearer the truth than the present-day prevalent notions. Around the same time (1826), the people of Sattara and Khandesh believed that 'new [social] rules can be established' in consultation with elders and Brahmins; and the Sattara people went as far as to say that 'custom has sanctioned many things in opposition to the Sastras.' It is true Poona differed from this view. But Poona was a purer citadel of Brahminical scholarship and custom.

Another point regarding the present notions may be mentioned here. The custom of *Sati* much exercised the mind of many Indians and the British in the early nineteenth century. Since then a whole mythology has been created and is believed in regard to its wide scale prevalence in the early years of the 19th century. But in a period of some 40 years, 1772–1813, only some three cases of '*Sati*' can be traced in the records of the Madras Presidency. No doubt in the Bombay presidency in the four years 1824–1827 there were 158 cases, but 114 of these occurred in Concan South, 17 in Dharwar, 11 in Ahmedabad and 10 in Khandesh. Other districts of the Bombay presidency reported one or two cases or nothing at all. It is possible that the recorded cases were not the total reality. Probably not. But these must have borne some relationship to what existed. In Bengal of course the practice was fairly widespread but its intensity was mainly limited to Calcutta division with some 250 to 500 cases every year, with Benares and Dacca following with 50–140 annually during 1815–1825.

Yet another much believed notion amongst the scholars and ruling circles is about the age-old submissive nature of the ordinary Indian and his child-like attitude to his rulers. Discussing the tendency for flattering the British and harshness to those in their power amongst the Madras native officials, while the Maratha Brahmins were 'more civil to their inferiors, polite to their equals and less cringing to their superiors' than the inhabitants of the British governed old provinces (Bengal and Madras) one of the senior officials who had had experience of both Madras and Bombay areas had this to say: 'In our old territory, the nature of our institutions has in great degree confounded all ranks and distinctions of persons, reducing the whole to nearly one common level, with the exception of the few whom we employ in office.' Another official suggested that the reason for such behaviour might be inherent in the situation of British power. He said: 'The position of the *Mamlatdars* (the Indian revenue officials of the British) was now secure from the influence of the "gentry" of the country; therefore the *Mamlatdars* no longer troubled to conciliate them.' Elphinstone who was Governor of Bombay at this time (1820–22) also noted this difference and in commenting on the statement of a senior Bengal Officer 'that there was scarcely a Bengali in his district who would sit down in the presence of an English gentleman' remarked: 'Here every man above the rank of a Hurcarrah sits down before us, and did before the Peshwa; even a common ryot, if he had to stay any time, would sit down on the ground.' (The quotations and facts in this para and the quotation from Elphinstone's Minutes in the para above are taken from Mr. Kenneth Ballhatchet's book *Social Policy and Change in Western India.*)

How the submissive attitude developed may perhaps be illustrated from an incident described in a book, *Sketches of lndia* by C.E. Kenway published in 1858. While recommending that 'we must awe by power whilst we attack by kindness', the author reproduces an account of an incident in 1764. According to him, 'shortly after the battle of Patna, Major Hector Munro came up with reinforcements of British troops and assumed the command of the whole army. To put down a mutiny of the sepoys whom he found clamouring for higher pay, Munro determined to blow 24 of the ring leaders from the mouth of his cannon. The victims were selected from a whole battalion, who, after threatening the lives of their English Officers, had been caught marching off by night to join the enemy. They had been tried by a Field Court Martial of their own black officers, who had found them guilty of mutiny and desertion. When four had suffered, and the fifth was tied to the gun's mouth, the sepoys tumultuously declared that the execution should stop there. Munro ordered the artillery officers to load with grape, and turn their guns on the native regiments: he drew up his Europeans in the intervals between the guns, and called on the sepoys to ground their arms. The men obeyed, and the executions went on. This extreme measure was attended with complete success. There was no more mutiny from that day forward.

The need for the Indian scholar is to do a little probing of the facts and beliefs which have been taken for granted for so long, and in the extension of which he has had a large share.

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The need for the Indian scholar is to do a little probing of the facts and beliefs which have been taken for granted for so long, and in the extension of which he has had a large share.

5. The Fifth Report from the select committee of the (British) House of Commons on the affairs of British East India Co., 1812 particularly the report of James Grant, *Political Survey of the Northern Circars*.

Also see, *Land Tax of India—According to Mahomadan Law—translated from Futawa Alumgeeree* by N.B.E. Baillie, London, 1853; *The Present Land Tax in India* by Lt. Col. John Briggs, 1830.

6. *Standing Orders of the Madras Board of Revenue 1820–1865*, No. 127(3) of 18th September 1858.

7. Various reports of the Madras Board of Revenue for the years 1852–55. Also (a) *Papers relating to reduction of assessment in North Arcot, 1855*, (b) *Salem—An Indian Collectorate* by J.W.B. Dykes, 1853, (c) *The condition and requirements of the Presidency of Madras*—as a letter to Joint Secretary, Board of Control, London by J.B. Norton, Madras 1854, and many other documents of the period.

8. Reference may here be made to (a) *Memorandum of the improvements in the administration of lndia during the last thirty years* (referred to earlier); and (b) to various despatches from the Court of Directors of the East India Company to the Governor General during the period 1815–35 particularly the dispatch of January 2, 1829.

Appendix 1

PHYSICAL ACHIEVEMENTS*

(Under the R.D.L.A. Department, Madras)

*From Review of Panchayat Development in Madras State, 1964–65.

m.t. – Metric Tonnes
k.m. – Kilometers

Appendix 2

TIRUPPUVANAM PANCHAYAT UNION
STAFF POSITION (November 1964)

Appendix 3

MADRAS PANCHAYATS BILL 1958
SEPTEMBER 2, 1958

Statement of Objects and Reasons

This bill is intended to provide the statutory basis for reorganising local administration in the rural areas of the State. The need for re-organisation has arisen recently because of the progress made in the implementation of the National Extension Service Scheme of Community Development. The relevant considerations of policy are set out fully in the preamble. A brief resume of the principal changes involved in the proposed re-organisation is furnished in this statement.

2. The most important among the changes proposed is the abolition of district boards at district levels and their replacement by panchayat union councils set up at the level of development blocks delimited under the National Extension Service Scheme of Community Development. Two purposes are intended to be secured by the change.

First, the development block will be a much more manageable territorial charge than the district. The members of the new panchayat union councils will have much more intimate personal knowledge of the needs and resources of the entire local area placed in their collective charge than the members of the district board drawn from a much larger area. The change will thus be conducive to improvement of the efficiency of local administration and more effective participation therein by the elected representatives of the rural people.

Secondly, the National Extension Service establishment have been organised and their members trained with reference to the requirements of service in development blocks, which are delimited on a broadly uniform basis in all the States of India. It is necessary that the services of these organised establishments should be made available to the elected representatives of the rural people. Re-organisation of local administration on the basis of the development block as a territorial unit will help to secure this result conveniently.

3. At present, the district boards are constituted by an elective process which is entirely unrelated to panchayats. It is proposed that the panchayat union councils which will replace

district boards should be organically related to panchayats. To that end, the Bill provides that every panchayat should be individually and separately represented on the panchayat union council by a member elected by the members of the panchayats concerned. This change is intended to bring (the panchayats concerned) about intimate understanding and unity of purpose between the panchayat union council and the panchayats, and consequently, bring about better co-ordination of their activities in their representative fields.

4. The functions which are proposed to be entrusted severally to panchayat union councils and to panchayats will be in the aggregate the same as those at present entrusted to district boards and panchayats, subject only to the changes specified below:

First, district boards are, at present, maintaining high schools, hospitals, major district roads and travellers' bungalows. It is proposed that these institutions and works should be excluded from the scope of district board functions to be vested in panchayat union councils.

Secondly, various measures designed to develop the productive resources of development blocks are, at present, undertaken by official agencies in pursuance of the National Extension Service Scheme of Community Development which are unrelated to district boards and panchayats. The Bill confers power enabling Government to devolve the responsibility for execution of the entire scheme upon the panchayat union council, with its consent and subject to agreed terms and conditions.

5. There is, at present, a large measure of overlap in the statutory specification of functions allotted to district boards and panchayats. It is now proposed to revise the allocation of functions so as to remove this overlap and demarcate clearly the respective spheres of responsibility of the panchayat union council and the panchayat.

6. An important result of the reallocation of functions will be the entrustment to panchayat union councils of undivided responsibility over the whole field of elementary education. They will be responsible not only for the maintenance of all public elementary schools (at present managed by district boards, panchayats or Government Departments) but they will also be entrusted with responsibility for the provision of grants for aided private elementary schools. The entire responsibility for organising planned development of elementary education on a

free and compulsory basis will devolve in such development block, on the panchayat union council concerned.

7. There is a long standing complaint that the allocation of financial resources to district boards and panchayats at present in force is inadequate. The entire scheme of local taxation and finance as well as of Government grants for elementary education and other purposes has been reviewed and revised. Estimates have been framed of the increased resources likely to be required by panchayat union councils and panchayats, with reference to the revised allocation of functions. The new system of local taxation and finance including the revised system of Government grants is designed to make adequate resources available with reference to estimated requirements.

8. The switch over to the new set-up cannot be effected on a single day. The Bill makes provision for the legislation being introduced in successive batches in development blocks, according to a phased programme with 2nd October 1961 as the target date, for the setting up of panchayats in all villages where there are no panchayats at present and in setting up of panchayat union councils in all development blocks of the State. The Bill provides for the continued functioning of special officers who are at present performing the functions of district boards until these are taken over by panchayat union councils.

9. All the changes embodied in the Bill have been evolved on the basis of general agreement reached in the course of examination of the White Paper on Local Administration by the Legislative Committee set up by Resolution of both Houses. The proposals relating to local taxation and finance were formulated by a local Finance Sub-Committee appointed by the Legislature Committee and subsequently reviewed and confirmed by the main committee.

10. The Bill is drafted so as to provide self-contained legislation in place of the Madras Village Panchayats Act, 1950, as well as the Madras District Boards Act, 1920. A large number of sections of these two enactments have, therefore, to be reproduced without change as clauses of this Bill.

The notes on clauses, which follow, are limited to those clauses of the Bill which give effect to the changes referred to above.

Notes on Clauses

Clause 1. This clause contains the short title, extent and commencement of the proposed measure. As the Bill deals not merely with village panchayats but also with town panchayats, 'The Madras Village Panchayats Act, 1950', which is the short title of the existing Act has been replaced by the short title 'The Madras Panchayats Act, 1958,' in the Bill.

The clause enables the Government to bring the Act into force in different areas on different dates. The Act is to be brought into operation throughout the entire State before the 2nd October, 1961 although as a measure of caution, a provision has been inserted for extending the above target date by one year at a time.

Under the Madras District Boards (Amendment) Act, 1957 (Madras Act XIII of 1957) special officers of district boards can continue in office only up to the 31st October, 1958. Provision has been made in clause 196 of this Bill for the continuance in office of those special officers until the constitution of panchayat union councils for panchayat development blocks as after the panchayat union councils are constituted, the Madras District Boards Act, 1920 will cease to be in force in the panchayat development block concerned. The above provision has therefore to come into force immediately the Bill becomes law and this intention is given effect to in clause 1(3).

Clause 3 provides for the declaration of local areas as panchayat villages and panchayat towns. The present nomenclature of Class I Panchayats and Class II Panchayats has been altered into town panchayats and village panchayats respectively in the new set-up of panchayat administration.

Clause 5 provides for the constitution of town panchayat areas as municipalities in certain circumstances, the transfer of the assets and liabilities of the panchayats in those areas to the municipality and other consequential matters.

Clause 7 authorises the Government to declare any local area forming a development block for the purposes of the National Extension Service Scheme of Community Development to be a panchayat development block and to constitute for every such panchayat development block a panchayat union. Power has also been taken for the exclusion or inclusion of any village or town from a panchayat development block and for the cancellation of declarations already issued. The procedure to be followed before issuing declarations under the new clause and the consequential matters to be provided for in those declarations are also set out in the clause.

Clause 11 provides for the constitution of panchayat union councils for panchayat unions.

Clause 12 specifies the strength of the panchayat union council and provides for the election thereto of members by panchayats and townships and for the representation therein of members of the State Legislative Assembly, members of the Scheduled Castes and women.

Clause 12 provides for the repeal of the Madras District Boards Act, 1920, the Madras Village Panchayats Act, 1950, and the Madras Land Revenue (Additional Surcharge) Act, 1955, in areas for which panchayat union councils have been constituted and specifies the consequences which will follow as a result of such repeal, such as, the cessation of duties of special officers, the transfer of assets and liabilities of district boards, the transfer of elementary schools, choultries, dispensaries, markets and roads now vesting in district boards to panchayat union council, the transfer of hospitals, rest-houses and travellers bungalows to Government, and the transfer of district board secondary vocational and industrial schools to such authority as may be specified by the Government in that behalf.

Clause 19 specifies the tenure of office of members of panchayat union councils and the manner of filling ordinary and casual vacancies. According to this clause, the term of office of members will be five years beginning at noon on Tamil New Year Day.

Clauses 25 and 26—According to the existing provisions, a person who is a servant or employer of the official subordinate or official superior of a member is prohibited from standing as a candidate for membership of a panchayat and similarly a person will cease to be a member if he accepts employment under or becomes the official subordinate of any other member. This disqualification is removed in the Bill.

Clauses 37 and 38—These clauses provide for the election of chairman, vice-chairman for every panchayat union council, the filling up of vacancies in their offices, the devolution and delegation of their functions, etc., and specify their duties and powers.

Clauses 44 and 45 provide for the appointment of commissioners for panchayat unions and specify their duties and powers. It has been laid down that ordinarily Block Development Officers will be appointed as Commissioners.

Clause 47—This clause contains the necessary provisions relating to the conduct of meetings of panchayat union councils.

Clause 53 enables panchayat union councils to appoint committees for the efficient performance of their duties and functions.

Clause 55 requires the panchayat union council to submit to the District Collector a consolidated administration report as regards its own administration as well as the administration of all panchayats in the panchayat union.

Clauses 57 to 62 contain provisions relating to the establishment of panchayats and panchayat union councils, appointment of common officers by two or more panchayats or panchayat union councils, transfer of officers and servants, etc.

Clauses 63 and 64—The lighting of roads and public places in built-up areas within the jurisdiction of the panchayat has been made a mandatory duty of the panchayat while the lighting of roads and public places in areas other than built-up areas has been made a discretionary duty of the panchayat. Among the discretionary duties of the panchayat, the establishment and maintenance of parks, literacy centres and centres for imparting social education have also been included.

Clause 65 specifies the mandatory duties of panchayat union councils. These include the construction, repair and maintenance of public roads classified as panchayat union roads, the establishment and maintenance of dispensaries, maternity and child welfare centres, choultries, etc., the construction and maintenance of elementary schools, control of fairs and festivals, improvement of agriculture and the promotion and encouragement of cottage industries.

Clause 66 authorises the Government to entrust to a panchayat union council the execution of National Extension Service Schemes of Community Development including in particular all measures relating to the development of agriculture, animal husbandry and village industries organised on an individual or cooperative basis.

Clause 67 empowers the panchayat union council to make provision for carrying out the requirements of the panchayat union in respect of measures of public utility calculated to promote the safety, health, comfort or convenience of the inhabitants.

Clause 68 enables two or more panchayats to construct and maintain common water works and burial and burning grounds and to entrust to the panchayat union council the management of any institution or the execution or maintenance of any work.

Clause 69 empowers the Government to direct any panchayat or panchayat union council to provide for the lighting of public roads and public places.

Clause 70—Under this clause, two or more panchayat union councils may establish and maintain common dispensaries, child welfare centres and such other institutions.

Clause 71 authorises panchayat union councils to transfer immovable property to panchayats.

Clause 74 confers a general power on the Government and their subordinate authorities and officers to transfer to a panchayat union council the management of any institution or the execution or maintenance of any work or the exercise of any power or the discharge of any duty whether within or without the panchayat union and whether provided for in the Act or not.

Clause 77 declares that all public roads in a panchayat union which are classified as panchayat union roads shall vest in the panchayat union council.

Clause 78 specifies the duties of the panchayat in respect of roads excluded from the operation of the Act and placed under the control of the Highways Department of the Government.

Clauses 79 to 98—As a result of the proposed abolition of district boards, some of the duties of these boards will hereafter devolve on the panchayats and panchayat union councils. These clauses specify some of those duties, namely, precautions to be taken in case of dangerous structures, dangerous trees, dangerous tanks, wells, etc., the fencing of buildings or lands and the pruning of hedges and trees, power to order the closure of places of public entertainment in the event of the prevalence of any dangerous disease and to prohibit children suffering from any dangerous disease from attending school, enforcement of vaccination, removal of filth or noxious vegetation from lands and buildings, etc.

Clauses 99 to 105 relate to the duties of panchayats and panchayat union councils in respect of public and private markets. A panchayat union council may with the sanction of the Inspector open or close a public market. A panchayat or panchayat union council may levy fees for the use of the market and for the use of the shops, stalls etc., in a market. A new private market cannot be opened without a licence obtained from the panchayat or the panchayat union council. The opening of unlicenced private markets and the sale of animals or articles on the public road are prohibited. The Government may classify public and private markets, revise such classification, apportion the income derived from markets or the contributions payable to them and decide disputes as to whether places are markets or not. Provision has also been made enabling a panchayat union council to acquire the rights of any person to hold a public market, such acquisition being made under the Land Acquisition Act, 1894. The provision in existing section 81 of the Madras Village Panchayats Act, 1950 which prohibits any person from opening a new private market or continuing to keep open a private market has been declared to be ultra vires by the Madras High Court and so has not been reproduced in the Bill.

Clauses 115 to 143 comprise the chapter relating to Taxation and Finance. According to the provisions in this Chapter a local cess and a local cess surcharge will be levied in panchayat development blocks and a house-tax, a profession tax, a vehicle tax and duty on transfers of property in panchayat areas. Subject to such rules as may be prescribed and with the sanction of the Inspector, a panchayat may also levy a tax on agricultural land for a specific purpose. The local cess levied in the panchayat development block will be in lieu of (i) the land-cess leviable under section 74-B of the Madras District Boards Act, 1920; (ii) the taxes leviable under any head of taxation mentioned in section 34(2) of the Madras Elementary Education Act, 1920; and (iii) the land revenue surcharge leviable under the Madras Land Revenue (Additional Surcharge) Act, 1955.

In order to augment the resources of the panchayat union councils and panchayats, specific provision has been made for the making of certain grants to them by the Government. The Local Education Grant, the Local Cess Surcharge Matching Grant and the Local Roads Grant will be paid to the panchayat union councils and the Village House-tax Matching Grant will be paid to the village panchayats. In addition, the Government will pay to each panchayat union council every year a specific sum out of the land revenue collections with reference to the population of the panchayat development block concerned. The sums thus credited to the accounts of panchayat union councils will be known as Land Revenue Assignments. For the purpose of sanctioning grants, the Government will classify panchayat development blocks in such manner as they may deem fit.

Every panchayat union council will have two funds, one the Panchayat Union (General) Fund and the other Panchayat Union (Education) Fund. Every town panchayat will have a Town Panchayat Fund and every village panchayat will have a Village Panchayat Fund.

Necessary provisions have been included in the Bill as regards the items of receipts which should be credited to the Panchayat Union (General) Fund and those which should be credited to the Panchayat Union (Education) Fund, the manner in which the funds should be expended, the appointment of auditors, the preparation and sanction of budgets, etc. Provision has also been made for the grant of exemption from payment of taxes, writing off of irrecoverable amounts, the utilisation of the land revenue staff for the collection of taxes and fees, the making of a contribution towards any expenditure incurred by the Government or by any panchayat union council, panchayat or other local authority if the expenditure is likely to benefit the inhabitants of the locality and for the recovery of loans and advances made by the Government.

Clauses 144 to 158—These clauses relate to the powers of Government, Inspector, Collector and other controlling authorities and mainly reproduce the corresponding provisions in the Madras Village Panchayats Act, 1950, with necessary modifications as a result of the inclusion in the Bill of provisions relating to the proposed panchayat union councils. Some modifications have been made in regard to the procedure for the removal of presidents and vice-presidents of panchayats. According to the existing provisions, the president, vice-president or member of a panchayat may be removed from office by the Inspector, even without any resolution from the panchayat in that behalf. If the Bill becomes law, the Inspector can remove a president or vice-president of a panchayat only if the panchayat, presided over by the Tahsildar of the Taluk, passes a resolution in that behalf. The provision for removal of a member has also been omitted. A new provision has been inserted for the passing of no-confidence motions against the president or vice-president of a panchayat, the meeting concerned being presided over by the Tahsildar.

Similar provisions have also been inserted as regards the removal of chairmen and vice-chairmen of panchayat union councils subject to the difference that the meetings concerned will be presided over by the Revenue Divisional Officer and not the Tahsildar and the authority to remove the chairman or the vice-chairman will be the Government and not the Inspector. Provision for dissolution and supersession of panchayat union councils has also been made on the lines of the existing provisions for the dissolution and supersession of panchayats.

Clause 169. This clause relates to the according of sanction for prosecutions and reproduces the existing section 106 of the Madras Village Panchayats Act, 1950, with the addition of reference to the chairman, vice-chairman and commissioner. An additional provision has however been made that when according sanction, the Government may order that the president, executive authority, chairman, vice-chairman or the commissioner as the case may be shall not discharge his duties until the disposal of the case.

Clause 178 deals with the rule making powers of the Government in respect of the several matters dealt with in the Bill. Specific power has been taken among others for the making of rules as regards the principles to be followed in regard to the exclusion of any local area from or the inclusion of any local area in a panchayat village or panchayat town or in regard to the inclusion of any local area in a municipality, as to the period within which a panchayat union council may co-opt women and members of the Scheduled Castes and the manner of filling vacancies if no woman or member of the Scheduled Castes is co-opted, as to the principles to be followed by the Government in making grants and contributions to panchayats and panchayat union councils.

Clause 181 and Schedules II and III provide for the imposition of penalties (ordinary penalties and penalties for continuing breaches) relating to panchayats and panchayat union councils.

Clause 189 provides for the extension of the Act to the Kanyakumari district and the Shencottah taluk of the Tirunelveli district as soon as a panchayat union council is constituted for these areas and for the repeal of the Travancore-Cochin Panchayats Act, 1950. Necessary saving provisions have also been included.

Clause 190 and Schedule IV—The necessary transitional provisions for first giving effect to the provisions of the new measure are enumerated in Schedule IV. Sub-clause (2) of clause 190 authorises the Government to amend, add to or repeal the rules mentioned in Scheduled IV.

Clause 191—According to section 132 of the Madras Village Panchayats Act, 1950, every panchayat has to be deemed to be a panchayat court under section 9(1) of the Madras Village Courts Act, 1888 and may exercise powers under that Act. The Government may also confer on any panchayat court any civil or criminal jurisdiction not provided for in the Madras Village Courts Act, 1888. As it is considered that panchayats should not be saddled with the powers of village courts, section 132 referred to above has not been reproduced in the present Act, but provision has been made for the transfer of pending suits and proceedings if any to the appropriate courts constituted under the Madras Village Courts Act.

Clauses 192 to 195—These clauses make consequential amendments to the Madras District Municipalities Act, 1920, the Madras Elementary Education Act, 1920, the Madras Motor Vehicles Taxation Act, 1931 and the Madras Entertainments Tax Act, 1939.

Clause 196 provides for the continuance of Special Officers of District Boards up to the constitution of panchayat union councils for each panchayat development block by amending the Madras District Boards (Amendment) Act, 1957 suitably.

LOURDHAMMAL SIMON

Minister-in-charge of Local Administration

Clauses 14, 15, 26(1), 30, 34(4), 35, 36, 37(2), 39(2), 41(5)(b), 44(3), 47, 50, 51, 52(2), 54, 57(3), 58, 59, 61, 63, 64, 65, 67, 68, 70, 72(4), 74, 84(2), 85, 86, 93, 99, 106, 109, 113, 117, 119(3), 120 to 123, 124(3), 125, 126, 138, 139, 162, 167 and 178 of the Bill authorise the Government to prescribe the manner and method of giving effect to certain provisions of the Bill by making suitable rules thereunder. Clauses 3, 6, 16 and 57(3) empower the Inspector to exercise powers to give effect to certain provisions of the Bill. Clauses 51 and 180 empower the panchayats and the panchayat union councils to frame regulations or by-laws for carrying out any of the purposes for which they are constituted. Clause 157 empowers the Government to delegate the powers exercisable by them under the proposed legislation to officers subordinate to them. Clause 188 empowers the Government to do anything which appears to them necessary for the purpose of removing any difficulty in first giving effect to the provision of the Act, etc. The powers delegated are normal and not of an exceptional character.

FINANCIAL MEMORANDUM

Clause 118 of the Bill provides for payment to each panchayat union council a sum representing one rupee for each individual of the population of a panchayat development block from out of the total land revenue (including water cess) collected in the state during the year. Clauses 128 and 129 provide for payment annually to every panchayat union council of a Local Education Grant and a Local Cess Surcharge Matching Grant respectively. Clauses 131 and 132 provide for payment of grants called the Local Roads Grant and Village House-tax Matching Grant respectively. Clause 141 provides for the appointment of auditors of the accounts of the receipts and expenditure of the funds of the panchayat union council and of the panchayat and clause 144 provides for the appointment of officers to supervise panchayat union councils and panchayats. The legislation, therefore, involves expenditure from the Consolidated Fund of the State. It is not possible at this stage to estimate, with any degree of accuracy, the expenditure connected with the administration of this measure, since the increase of expenditure from year to year will depend upon the phasing of the programme, as well as the local resources. The Local Finance Sub-Committee of the Legislature Committee on Local Administration reviewed the financial implications embodied in this Bill with reference to the targets and phasing that the Sub-Committee had in view. The views expressed by that Committee are reproduced below for the information of the legislature:

> Earlier in this report we explained that the assigned Local Revenues and Government Grants amount at present to 275 naye paise per capita in all the panchayat villages of the State, and that on an average this is proposed to be raised to 600 naye paise per capita. We drew attention to the existence of a gap to be filled of the order of 325 naye paise per capita and raised the question, 'Wherefrom will this money come from?' It is convenient to set out the answer to this question at this stage.
>
> To begin with 100 naye paise per capita out of the 325 naye paise is accounted for by our proposal about the 'Land Revenue Centage'. This is not a question of raising new resources; it is a transfer of existing resources from the State Government to Panchayat Unions. The State Government is relieved of its present commitment in respect of grants to private elementary schools substantially to a corresponding

extent. We may also ignore for the present the new resources which will be raised in villages where no panchayats exist at present, merely as a result of constituting village panchayats as elsewhere. We may then treat as Village Panchayat Development Expenditure an amount representing 225 naye paise per capita over the entire village population of the State. This will be something between 4½ crores and 5 crores per annum for the State as a whole.

So far as Town Panchayats are concerned, we do not envisage any particular increase or decrease in the present level of expenditure per capita, except in relation to elementary education. Making an allowance for this purpose, we may conclude the total amount of Panchayat Development Expenditure for the entire rural (i.e. non-municipal) population of the State will be about Rs.5 crores per annum. Out of this total, a little less than 3½ crores per annum are required for the development of elementary education including provision of schools, meals for poor children and rather more than 1½ crores per annum for raising the standards of local amenities in villages.

According to the financial scheme recommended by us, we expect about 1½ crores to be provided by increased local taxation; rather more than half a crore per annum as local contribution to the development of elementary education and rather less than one crore per annum for local amenities. The higher level of expenditure will have to be brought about according to a phased programme of establishment of Panchayat Administration, year after year in successive batches of Development Blocks.

The foregoing calculation shows that the net effect of our Financial Scheme will be to require that over two-thirds of the Panchayat Development Expenditure (nearly 3½ crores per annum) will have to be provided out of State Government Funds. We wish to state clearly that we do not envisage the imposition of any new taxation at the State Level (other than the one already announced, viz., the Agricultural Income-tax). It is well known that Madras State has done its best already to raise financial resources needed for implementing its Development Plan. The increase of local taxation which we expect the new Panchayat Administration to undertake through the exercise of enlarged powers will be considerable. It is essential, therefore, that the resources already allocated under the relevant heads (i.e., elementary education, roads, etc.) under the Second Five Year Plan will be sufficient (after taking into account the Central Government Grants which are forthcoming under the pattern of assistance laid down under the plan) to meet the expenditure of Government Grants which we have recommended. The position is thus safe enough for the remaining years of the Second Five Year Plan.

But the scheme we have proposed for financing Panchayat Administration is of a permanent nature. The increase in the level of expenditure envisaged by us will proceed steadily and stabilisation at a higher level will be reached only after the mid-year of the Third Plan period. It is absolutely essential for the implementation of the Financial Scheme recommended by us that Central Government Grants to the State Government should continue to be available throughout the Third Five Year Plan period so as to cover a specific proportion of Panchayat Development Expenditure as defined by us. We think it would be a fair distribution of the burden of raising new resources for Panchayat Development if the burden is distributed about equally at three levels, one-third on Panchayat Administration, one-third on the State Government and one-third on the Central Government. The proportion to be borne by the Central Government during the Third Plan period should not, in any case, be smaller than during the Second Five Year Plan period.

We recommend that the State Government should take up this question with the Central Government straightaway. In view of specific provisions of Article 36, 40, 45, 46, 47 and 48 of the Constitution and in view also of the various pronouncements of the Prime Minister and other high authorities of the Central Government on the imperative need for the development of Panchayat Administration, we trust that the Financial Scheme recommended by us (including as an essential part thereof the provision of Central Government Grants) will be accepted and embodied in the Third Five Year Plan.

(By order of the Governor)

A. ALAGIRISWAMI

Secretary to Government, Law Dept.

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Appendix 4

THE CUSTOM OF 'KAREIYID' OR PERIODICAL REDISTRIBUTION OF LAND IN TANJORE

(From the *Manual of the District of Tanjore in the Madras Presidency,* by T. Venkasami Row, Madras, 1883: Appendix C, by H.J. Stokes, C.S. Negapatam.)

In 1807 a Committee appointed to report on the project of making a permanent settlement in Tanjore found that there were three classes of villages in the district, which were named according to the tenure on which they were held. These were:

1.	Samudayam, of which there were	1,744
2.	Palabhogam, of which there were	2,202
3.	Ekabhogam, of which there were	1,807
	Total villages	5,783

We are not now concerned with the two latter, which are villages the lands of which are possessed by several or by one holder but need only speak of the Samudayam holdings. This class, which I conceive to be the most primitive, must be subdivided into two, namely, those in which the land itself was temporarily apportioned. The word Samudayam is Sanskrit, and means 'Common'. The villages to which this term specially applies are those in which the members of the community, or mirasdars as they are now styled, cultivate the lands in common, and divide the produce, according to each man's pangu or share. That is, there are no separate allotments of land to individuals, and the property was a right to a certain share or a number of shares in the produce. In such villages each holder possessed his proportion of the common stock, and contributed his share of the labour. The only separate land he could hold was the garden or backyard attached to his house and situated within the limits of the village site. There are hardly any villages now remaining in which this tenure still exists, and it will doubtless soon die out. There are, however, lands in many villages, generally waste or inferior fields, of which the cultivation is precarious, which are called 'Samudayam', and held and tilled in common by the landholders; they are such lands as it was expedient to hold in common, or such as were not worth dividing, and in them the ancient tenure, which was probably at one time universal, is found to survive. But as under this system, there is little encouragement to individual industry, and as therefore the cultivation is slovenly and the yield poor, there inevitably arises the necessity for the next step in agricultural improvement, namely, that of allotting to each shareholder in the village a certain portion of land to cultivate. A village in which this arrangement has taken place is called in Tamil a 'Pasun-Karei' or 'Kareiyid' village. The word 'pasun' is an old Tamil word cognate with the Kanarese verb pasu, 'to divide' and both names mean 'Field Division'. At first the allotment was probably made anew each year, at least such would be the natural commencement of the change, and we find that such was actually the case in some of the richest villages in what used to be called the Jaghir, and is now the Chingleput district around Madras; but in Tanjore I am unaware of any instances being known where the changes were so frequent. The periods usual in this district vary from eight to thirty years, according to the pleasure of the mirasdars.

The manner in which the redistribution of lands takes place will best be described by an example. In a village, say, of twenty velis (1 veli = 6.6 acres), a certain unit is fixed one which is called a pangu or share, and is in some villages 1 veli, and in others varies from 1¼ to 3 velis. The village is divided, according to its extent, into from four to ten 'Kareis' or blocks, to each of which so many shares are allotted. Thus in a village of 20 velis, there might be 15 shares apportioned to 4 blocks of land among 12 shareholders, each block containing the land of three shareholders.

In the month of June, July or August, before the seed is sown, the operation of division, or 'Kareiyid' commences. First of all, the whole area of the village is measured, and a measurement account prepared. Then for each karei (block) a headman is chosen from among the landholders, who is known as the (Also called Kareisvan or Shettikaran; the latter name being obviously from the Hindi 'shet', Sanskrit 'kshetra'.)Karei Karan or Kareisvami, the manager or master of the karei. He is generally one of the largest shareholders in the village; though nowadays if he cannot read and write, the larger holder is passed over in favour of the smaller who can. He is appointed by the common consent of the sharers who are allotted to the karei of which he is to be the head, and retains his position until the next division takes place. If he dies before that time, or sells his property, his office does not pass by inheritance nor sale to the purchaser. No new appointment is made; and the name of the original karei karan is attached to the karei throughout the time during which the distribution of the land is to remain in force. When he has been chosen and when certain shareholders have been allotted to each karei, an agreement is executed by them to abide by the karei karan and the allotment, and binding themselves to execute the necessary repairs and improvements, and to carry out certain other usual arrangements. Then the lands of the village are divided, without reference to previous enjoyment, into so many shares, 15 in the case we have taken; these again are embodied in 4 kareis. Then a slip of Kadjan (palm-leaf), called 'kareiyolei' is prepared for each of the four kareis, and on it are written the names and extent of the fields composing the karei. Four other smaller slips are inscribed with the names of the karei karans, each bearing one name; and then all the eight slips are thrown down together on the ground. A child of four or five years old, who cannot read, is sent to pick out a large and a small slip, and this decides the karei and the karei karan.

The lots are drawn in some public place, either before the temple, or at the math or at the village choultry. An auspicious day chosen according to the position of the star of the villages (which is determined by the first letter of its name), is appointed for the allotment; and the proceedings are to some extent of a religious character. If the drawing takes place at a temple, it is done in the presence of the deity; or if elsewhere, a new figure of the favorite village god Pilleiyar is made with saffron powder; as many coconuts are broken before it as there are mirasdars in the village, and after betel has been presented, and worship is over, the drawing of the lots takes place. After the lottery the slips of kadjan are deposited with the karei karans; and the agreement executed by the shareholders and measurement- account, are entrusted to the village priest, or schoolmaster, or astrologer, who is supposed to be a common friend to all parties. To make matters more secure, each mirasdar (shareholder) can have a copy of these documents for himself.

Within a week or so of this ceremony, which is properly the Kareiyid, each karei karan divides the lands of the block which has fallen to him among the mirasdars who have agreed to abide by him. This division is made either by the same process of casting lots, or by common consent. It need not be conducted in any particular place, nor is it attended with any ceremony. Each mirasdar receives, and keeps by him, a slip of kadjan on which his lands are entered.

In order to place more clearly before readers who care to examine the subject closely, the details of the working of this kareiyid tenure, I shall here introduce a translation of a kareiyid agreement. This document is one of those abovementioned which are executed by the mirasdars before the lots are drawn.

> This is the agreement which we, Devayyan and others, the undersigned mirasdars of the village of Nannilam, have made with one consent on the 22nd of Ani in the year Raktakshi (4th July 1864).
>
> All the mirasdars(This word, so well-known here, may require explanation elsewhere. It means a possessor of 'miras' or holder of land in the village with all the rights attached to ownership.) of the pangus (shares), nine in number of the above village, have enjoyed the nanjei (wet) lands, etc., in the village by dividing them according to Kareiyid, without achandrarkam.(When redistribution is abandoned for permanent tenure, the village is called 'achandrarkam' or 'as long as sun and moon endure', perpetual. The compound is a-chandra-arka.) They have agreed with Government some years ago for 'amani' management, some years on the estimate system, and some years for grain or money rents. From the Prabhava (year) before last to Ishvara (11 years), a kareiyid of nine kareis (was in force). From Vikrama to Saundari (Sarvadhari ?)—8 years—, there was a kareiyid of six kareis; and from Virodhi to Vilambi (9 years), a kareiyid of nine kareis. But whereas during this space of making kareiyids for short periods, they did not prosper, thinking that if a kareiyid were made for a long period, they might attain prosperity, they made one of six kareis for twenty-five years from Vikari to the 30th of Chittrei in the year Raktakshi. But there was great loss, as by reason of the lands being (split up) into various little holdings, the customary repairs by the villagers, and construction of banks (were neglected), and the dams and boundaries were not repaired; the channels and sub-channels were not properly cleared; and no matter how much manure or leaves were put on the nanjei (wet) fields, it did no good to the crop. The mirasdars were for the most part badly off, and suffered hardship and distress. So, having considered the necessity of obtaining ordinary prosperity

without the recurrence of such (misfortunes), and of the Government revenue being paid without the least trouble or deficiency; and whereas now in this present year the time has come for making kareiyid, we have essayed to make a kareiyid for a long period, and in accordance with the division now prevailing. Towards that end we have made a petition in the taluk that the necessary assistance may be granted, and all the mirasdars have voluntarily assembled in the presence of the Tahsildar and have asked him. Besides the undersigned, (who form) the majority of the mirasdars, Kanagasabhei Chetti, Appu Chetti, Bama Sami Chetti, and Vengappayyan who has obtained land from the mirasdar Chinna Kishnayyan on tenancy, these four persons only owning th of a pangu (share) refuse to act in concert with all in the village. With the intention of causing embarrassment and strife, just as they please, the above four persons, in a dissentient spirit, have declared that contrary to custom or voluntary agreement (i.e. as opposed to decision by lot) an allotment must be made to them four alone of good land, without reference to its various qualities in one part (of the village) or of various detached portions to be measured off for them from the several fields. In default of this, they will not agree to make kareiyid, and will keep the same lands as they have held hitherto. And whereas permission has been given for all the mirasdars who are willing to unite and make a kareiyid, all the mirasdars who have signed this have united, and, with a view to the proper execution of the customary repairs above specified in order that prosperity may be attained, have measured and classified the low- and high-level and other lands; and excluding the low-assessed service lands, which are held by right of purchase, and the lands shown in the account as set apart for temples, Brahmans, artisans and others, as entered in the former agreement and enjoyed by the several persons and institutions from the time of their ancestors, have classified such of the remaining lands as are nanjei (wet), and have allotted the shares (pangus) in four kareis. And the following is the account of the division :

1. Sundarappayyan's karei.

Name	Shares in eighths
The above Sandarappayyan	6½
Venkatachalayyan	¼
Subharayyan	½
Gopal Krishnayyan	½
Suppu Kutti-Ayyan	½
Krishnayyan	2
Amman Subhayyan	1
Chinnammal	1
Ramaswami Ayyan	
Venkatachala Chetty	2½
Total	16 eighths

2. Aneiyappayyan's karei.

Total (ten shares)	16 eighths

(and so of the other two kareis in which there were respectively eight and five shares.)

Total for all four kareis 64 eighths of a share or pangu.

Out of the common land the above four kareis have been divided and distributed. Suri Davayyan's younger brother Shivaramayyan has half an eighth share (pangu). Altogether there are 65½ (64½?) eighths. In this way, following the pangu (share) method, the division has been effected. And so for the four kareis, when lots have been thrown, according to the kareiyolei(*A slip of kadjan on which the specification of the lands is written.) which falls to them, the sharers shall enjoy the nanjei (wet) lands of their respective kareis, on a just and proper distribution, for twenty-five years commencing from this year.

Moreover, as it is necessary to provide for the repair and restoration of the temples in the above village which have fallen into disrepair; for that purpose 15 mas 31 gulis in the wet land called Shembadayan on the east, 12 mas 40 gulis in the Deevadanam wet land, 9 mas 80 gulis in the

Angalamman Kovilpattam—these lands(*1 veli = 6.6 acres. 1 ma—0.33 acre. 1 guli—0.0033 acre.) 1 veli 17 mas 51 gulis in common shall be rented out for seven years, and after deduction of the tenant's share each year, the remainder shall be applied as follows :—

Two years' income to the temple of Ramaswami.
” ” ” Krishnaswami.
One year's income to the temple of Ishvaran.
” ” ” Ayyanar.
” ” ” Pillaiyar.

In such manner must the income of the several years be employed in the service of the said temples. The Government revenue on these lands is to be paid rateably on the 64½ eighth shares. Hereafter from the year Prajotpathi, the common land set apart for the service of the aforesaid temples shall be enjoyed in a just and proper division for the rest of the present kareiyid by the several sharers to whom it may fall in the present distribution. The income obtained from the abovementioned lands set apart for the restoration of the aforesaid temples shall not be spent in any other way. As 180 gulis of land belonging to the eighth-share of the aforesaid Krishnappa Nayak, are in possession of Kanagasabhei Chetti, an equivalent deduction will be made from Krishnappa Nayak's share, and he may sue Kanagasabhei and get the land. The other sharers have no interest in it.

The punjei (dry) lands were formerly divided permanently (Achandrarkam) and the mirasdars of the aforesaid 64½ eighth-shares have made wet cultivation in some of those lands; those who have so done shall continue to enjoy those lands and pay the wet land assessment on them. Of the remaining dry lands, that on the outside of the river-bank, and that inside and outside the bank of the Kavali channel shall be measured, and inequalities are to be adjusted in the division of the outside lands only; and the land is to be enjoyed according to the former kareiyolei.

The (land called) kilveli, the Kavali channel bank water-spread lands, the Puducheri-veli dry lands, the dry lands entered in the other perpetual(Achandrarkam kareiyolei of the dry lands formerly divided.) distribution account, are to be measured, and their inequalities adjusted. He who has less is to take of that which is given up by him who has more (than his fair share).

The Kilveli river-bank, the river-bed lands, the dry lands and others are to be measured as entered in the former agreement, and redivided in the month of Tei of the present year in compact blocks. The Adi crops which now stand in the aforesaid lands are to be rented, and the rent divided among the mirasdars according to shares. The tree-tax which may be assessed on trees growing in dry, river-bed, and waste lands as yet unassessed shall be paid rateably according to share.

In accordance with what is proper for cultivating tenants and others, the Pariah street, the Chucklers' street, and the house-sites on the far side of the Puttar (a river) shall be measured according to the former perpetual division, and inequalities which have (arisen) adjusted. He who has too much shall give up to him who has too little in the Kilveli lands, and in the dry lands on either side of the Kavali channel.

The common boundary banks which are established for the wet fields, both banks of the Kavali channel, the channel for supplying the tank, the common banks in all the other lands, and the irrigation and drainage channels shall be cleared, strengthened, and maintained at the common cost.

And whereas now, in the manner aforesaid, the lands have been divided, their Government assessment is to be paid according to share. The Government assessment on waste dry land, and on waste fit for cultivation, which is now assessed on individual mirasdars, shall be paid according to the above share.

For the lands now distributed, the entry in the Government accounts shall be made according to enjoyment.

The lands allowed to tradesmen and artisans shall be divided and enjoyed according to the above shares, and the Government assessment on them paid in the same way.

And for all the lands as aforesaid, the irrigation and drainage shall be maintained according to custom.

> If a scarcity of water occurs, an agreement must be drawn up (specifying the turn of each cultivator for taking water from the channel, and the length of time he may so take it), and the irrigation shall be conducted accordingly. A double dam shall be made east of the Kidaran Kondan sub-channel and the water led on to the wasted Kadamban field.
>
> A sub-channel shall be cut from the Muleimangalam channel, and the water led on to the aforesaid field. In all other places the irrigation shall be carried on according to agreement. An aqueduct shall be put over the Kavali channel and the water led on to the temple lands.
>
> None of the aforesaid lands can be sold outright by any sharer; and even if so sold, the sale shall be null and void. In all other affairs which have to be carried on in the village, the practice laid down in former agreements is to be followed. To this effect have we all with one consent agreed.

I have thought it best, at the risk of being tedious, to give this curious document in full, as it illustrates so completely the system of redistribution. It points, too, to the causes which led gradually to the abandonment of the system. These are the neglect of banks, channels, and other repairs and improvements, owing to the short and uncertain tenure each cultivator has of his land; and the intrusion of outsiders into the community. It will be observed from the names, that three of the landholders who refused to consent to the proposed redistribution were Chettis, that is, tradesmen; and they may be presumed to have acquired their portions of the village from persons to whom they had advanced money. These outsiders would have no respect for the customs of the village, and little sympathy with the community into which they had thrust themselves. Hence doubtless the provision in the end of the agreement forbidding all sales of land.

Appendix 5

TEMPLE ASSEMBLIES AND VILLAGE COUNCILS

(This account of community life in a village in Tanjavur is taken from Chapter VIII (pp.107–116) of a recent study of a village in Tanjavur District, *When Caste Barriers Fall* by Dagfinn Sivertsen (Institute for Social Research, Oslo), published by George Allen and Unwin 1963, pp.137. The study was made during January 1957–January 1958 and the village described had a population of 786 (177 households). The number of the two main castes referred to in this account was Infantry—398 and Palli Infantry—93.)

PUBLICATION OF THE ABOVE IS MADE POSSIBLE BY KIND PERMISSION OF THE AUTHOR.)

Within the non-Brahmin castes relations of authority concerning a caste as a whole are incorporated in the organisation of jural and moral affairs. The organisation of these affairs has a sacred basis, in the Temple Assemblies which primarily deal with ritual activities.

The rules which govern this organisation are established by tradition and are not themselves subject of dispute, but their operation constantly requires decisions and sanction for which leaders have been chosen.

As will be shown in this chapter the temple assembly is a very important instrument of political control. The new association seeks to gain control of this instrument in order thereby to secure a more enduring basis for its influence.

Among non-Brahmins jural and moral affairs are dealt with by the temple assemblies which have the custody of the temples in the non-Brahmin streets and are the centres of the social and ceremonial life of these castes...

At both ends of the Infantry street there is a temple. One end of the Infantry street joins the Palli Infantry street. Associated with each temple is an assembly. One comprises all married men living in the one half of the Infantry street, and the other, the Infantry men living in the second half of the street including all married men of the Palli Infantry caste. The assemblies have separate leadership and hold meetings separately but join together in the major festival processions.

The assemblies work according to the same rules and deal with similar matters, so for practical purposes they may be described as one. Each assembly is headed by a group of wealthier, senior persons about five to six in number, all of whom occupy the most expensive looking houses in the streets. Their local title is Nathanmaikarar: one who wields power. A leader may also be referred to as Machevithekerar: one who occupies a 'fine house'. Meetings are held outside the temples every new-moon night and during calendar festivals. Attendance is obligatory, but a member may send an elder son or brother as deputy.

The Nathanmaikarar is held in high esteem by all castes including Brahmins. His chief function may be described as guarding the custom, or as the villagers say, looking after good and evil on behalf of his caste. His authority extends over all the most important activities in the social life of the people. He presides at marriages and ear-boring functions where he supervises the exchange of gifts between relatives. As a token of honour he is always served first at such functions. He arranges funerals and the distribution of payment of village servants. He also acts as guardian for orphans and widows. Disputes between relatives and neighbours are referred to him for conciliation. The Brahmins also rely to some extent on his authority for disciplining smaller tenants and servants and negotiating cultivation contracts and the sale of land to tenants in the village. The Nathanmaikarars themselves hold considerable portions of land let to them by Brahmins.

A Nathanmaikarar is elected by ballot but does not hold his position for any fixed term and the elections are not periodic. These leaders are all nearly equal in wealth, have had at least a few years schooling and may thus regard each other as co-equals. In the village they are the 'big men'. But there are two obvious limitations to their power. One is the need for the assent of the rank and file of the assembly. The other is the degree of unanimity between the Nathanmaikarars themselves. The latter is particularly important. There have been times in the past when village festivals were not held, on account of disagreement between these leaders.

The affairs and activities managed by the Nathanmaikarars are as follows:

1. He conducts and presides over meetings and ceremonies;
2. Collects funds for expenditure on village festivals and temple repairs;

3. Organises auctions of loans from the caste funds;
4. Auctions fishing rights in the village tank;
5. Negotiates, adjudicates disputes, levies fines and acts as a small banker, etc.

Each member or household pays a monthly contribution to the temple fund, the amount being equal to about a quarter of a day's wages. The two shopkeepers in the village pay more. Greater amounts are contributed on special occasions like harvest festivals, etc. Loans are auctioned for a certain interest which is added to the fund. Fishing rights are sold on the condition that the buyer undertakes to join a collective catch. On the occasion of the catch the Nathanmaikarars are presented with the largest fish.

All the proceeds, including the amounts collected from fines, will be devoted to the temple funds. For the construction of public amenities there are separate collections. In the meetings which are held outside the temple there is strict observance of order. The leaders sit apart in a group in front of the temple with the others in two rows facing each other. Since the assembly is seated on sacred ground nobody is allowed to smoke or use indecent language. When an especially important case is being discussed no one is allowed to leave the session, one may do so only by pledging something for one's promise to return. There are also standard procedures for the swearing in of witnesses.

The following are examples of subjects discussed in some of these meetings:

Fixing of dates for the ceremonial ploughing and the arrangement of a village festival; construction of a village well and repair of the village tank; planning construction of a panchayat hall. Agreement was readily obtained on most issues but not on the question of building a panchayat hall where the contribution to be levied on each member would be higher than many of them thought they could afford.

I have been present at meetings when more controversial questions were brought up and the debate was more heated. When, for example, the proposal to abolish poultry keeping was made the prospect of reaching agreement seemed small. On this occasion the leader would not attempt to impose his will against an expressed majority but sought to avoid this particular issue in the beginning and instead opened his speech with a statement on the value of unity in general. Having exhorted them at length on the advantages of concord and united action he finally came around to dealing with the poultry question but did not press for an immediate decision.

He encourages discussion in the meetings, and tackling each in turn, urges every one to voice his opinion. Discussion of a particular issue may be continued over several sessions. Free and open discussions of the affairs of the caste in which all adult males participate is not thought inconsistent with general discipline and the authority and prestige of the Nathanmaikarar. Contending views as expressed in the traditional assembly are not regarded as opposed to the Nathanmaikararship as such, but as expression of disagreement between members of the group in general which it is the task of the leader to reconcile. In these meetings, then, the leader exercises his influence not so much by enforcing his own will as by attempting to bring about unanimity in the group as a whole and to evoke feelings of solidarity. His position is firmly anchored in the realm of custom, and the fact that he has been entrusted with its welfare by consensus of his caste gives his opinions and arguments weight. As his function is given in traditional terms, e.g., up-keep of custom and of the ceremonial life of the caste, etc., his position stands and falls with the traditional order as a whole. During a period of radical changes, however, he may still preside at ceremonies while being opposed by his castemates in other contexts.

In the past no one has ever appealed to any outside authority against the verdict of the assemblies. But recently one of the Nathanmaikarars complained to the police about being forced to attend meetings which were then directed by the communists in the village. In disputes, for example, between a Brahmin lord and his tenant the Nathanmaikarar of the Infantry caste is often called upon to arbitrate but in many cases he has not been able to restrain the parties from bringing of dispute before the court.

Other castes excepting the Brahmins have similar organisations and institutions of leadership, but there I was not able to study in detail.

Appendix 6

LIST OF PERSONS EMPLOYED IN THE STUDY

Note:

1. Dr C.N. Bhalerao, Dr J.S. Rao and Shri Krishnamurti were also associated with this study during its initial stages. Shri S.R. Tiwari, Organising Secretary of the A.I.P.P., also assisted at the time of the opinion survey during October-December 1964.

2. A few other persons also provided assistance on a part-time or ad-hoc basis particularly in the latter period of the study.

3. Persons marked thus ([a]) have been mainly engaged in work connected with the study from records at the State level.

4. Persons marked ([b]) have been wholly engaged with work connected with the opinion survey and those of them who continued with the unit after December 1964 also with the collection of some additional data.

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DHARAMPAL: LIFE AND WORK

Born in 1922, Dharampal had his first glimpse of Mahatma Gandhi around the age of eight, when his father took him along to the 1929 Lahore Congress. A year later, Sardar Bhagat Singh and his colleagues were condemned to death and executed by the British. Dharampal still recalls many of his friends taking to the streets of Lahore, near where he lived, and shouting slogans in protest.

Around the same period, there were excited discussions, especially in school, about whether the British should leave India. Some were against *swaraj* because they feared invasion of the country by Afghan tribesmen and others. With many others his age, Dharampal tended more and more towards the *swaraj* option. Though he underwent western education throughout school and college, his animosity to British rule grew year by year. By 1940, he had started to wear *khadi* regularly—a practice he follows even now—and even tried to take to spinning the *charkha* for a while.

In 1942, he was present as a fervent spectator at the Quit India Session of the Congress in Bombay and he thereafter joined the Quit India Movement. He was active in it till he was arrested in April 1943. After two months in police detention, he was released but externed from Delhi.

Dharampal recalls he was one of countless people who believed that once the British were gone, India would be rid of its misfortunes, particularly its state of disorganisation and impoverishment.

In August, 1944, he was introduced to Mirabehn by his friends. He joined her soon thereafter, at what came to be known as the Kisan Ashram, situated midway between Roorkee and Haridwar. He stayed with Mirabehn, with occasional absences in Delhi (1947-48) and England (1948, 1949) till about 1953 when she retired, first to the Himalayas, and a few years later, to Europe. But the contact stayed. Dharampal met her again for the last time in July 1982 in Vienna, about two weeks before her death. On that day, they talked together for some 6-8 hours in the quiet of the Vienna woods.

Earlier, during 1947-48, Dharampal had come in close contact with Kamaladevi Chattopadhyaya, Dr. Ram Manohar Lohia, and with numerous younger friends in Delhi. He was then associated with an attempt at cooperative rehabilitation of refugees from Pakistan. (He was a member of the Indian Cooperative Union which was founded in 1948 with Kamaladevi as its president.)

The following year, while in England, Dharampal got married to Phyllis who was English. Afterwards, they both decided to live in India. On their way back, they spent some time in Israel and visited a few other countries as well. In 1950, the community village of Bapugram in the Pashulok area, near Rishikesh, began to be formed. Dharampal and Phyllis lived in it till 1953. He returned to England with his family in 1954.

He was back in Delhi again from early 1958 to 1964 with his wife, son and daughter. He now took up the post of General Secretary of the Association of Voluntary Agencies for Rural Development (AVARD); Kamaladevi was its first president. Soon thereafter, Jayaprakash Narayan agreed to be the president of AVARD. (He remained president till about 1975.)

For about two years (1964, 1965) Dharampal worked with the All India Panchayat Parishad (A.I.P.P.) as Director of Research and spent

more than a year in Tamilnadu collecting material that was later published as *The Madras Panchayat System*. Earlier, in 1962, he had already published a smaller book containing the proceedings of the Indian Constituent Assembly relating to the discussion on the subject of “The Panchayat as the Basis of India’s Polity”.

From Madras, for family reasons, Dharampal once again moved to London in early 1966. His son had met with a serious accident.

By then he was also keen on a detailed study of the Indo-British encounter during the 18th and 19th centuries. This time he stayed on in London till 1982, but visited India in between. In England, he did not have much of an income. There was also a family to support. But notwithstanding all this, he became a regular visitor to the India Office and the British Museum and spent most of his time poring over the archives. Photocopying required money. Oftentimes, old manuscripts could not be photocopied. So he copied them in long hand, page after page, millions of words, day after day. Thereafter, he would have the copied notes typed. He thus retrieved and accumulated thousands of pages of information from the archival record. When he returned to India, these notes—which filled several large trunks and suitcases—proved to be his most prized possessions.

From around 1958, Dharampal had developed an association with Sevagram, especially because of Annasaheb Sahasrabudhe. He spent around a month in Sevagram in 1967, where he did his first writing based on the 18th-19th century data he had collected. His next long stay in Sevagram was from December (1980) to March (1981) when he completed *The Beautiful Tree*. From around August 1982 to 1987, he was mostly in Sevagram with occasional sojourns in Madras.

Dharampal was president of the Patriotic and People-Oriented Science and Technology (PPST) group. He was also closely associated with the Centre for Policy Studies located in Madras.

His wife died in London in 1986.

From 1993, he has been living largely at Ashram Pratisthan in Sevagram.

DHARAMPAL • *COLLECTED WRITINGS*

Volume V

ESSAYS ON TRADITION, RECOVERY AND FREEDOM

DHARAMPAL • *COLLECTED WRITINGS*

Volume I
Indian Science and Technology in the Eighteenth Century

Volume II
Civil Disobedience in Indian Tradition

Volume III
The Beautiful Tree: Indigenous Indian Education
in the Eighteenth Century

Volume IV
Panchayat Raj and India's Polity

Volume V
Essays on Tradition, Recovery and Freedom

ESSAYS ON TRADITION, RECOVERY AND FREEDOM

by
Dharampal

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Publisher's Note

Volume V comprises five essays by Dharampal which not only deal with some of the themes covered in the earlier volumes, but also place them within a broad philosophical perspective. Some of these essays are actually lectures delivered by him before audiences in Pune, Bangalore and Lisbon. Wherever possible, the original informal style and tone of the lecture has been retained.

These pieces have all been published in one form or another; in scholarly journals, popular print media, in booklet form, and in different languages. The merit of the present collection is that it brings these wide-ranging essays for the first time together within a single volume.

Dharampal has written and spoken richly and wisely on other areas and aspects of Indian society and culture as well, including some lively and insightful articles on Mahatma Gandhi. Hopefully, these will also be published as a separate volume in the not-so-distant future.

In the meantime, the interested reader can find a comprehensive bibliography of Dharampal's writings (including articles on him and his work) in a small booklet called *India Before British Rule and the Basis for India's Resurgence*, published in 1998 by the Gandhi Seva Sangh, Sevagram, Wardha 442 104, Maharashtra.

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I

SOME ASPECTS OF EARLIER INDIAN SOCIETY AND POLITY AND THEIR RELEVANCE TO THE PRESENT

*(*Some Aspects of Earlier Indian Society and Polity and their Relevance to the Present *consists of three lectures delivered on Jan 4–6, 1986 under the auspices of the Indian Association for Cultural Freedom at Pune. These were later published in* New Quest *[Nos. 56, 57 and 58] and also translated into Hindi and published in* Jansatta *in 12 parts during March-April 1986. They were also translated from English into Tamil a year later and published in book form. Soon thereafter, the pieces published by* Jansatta *were brought together in book form under the title,* Angrejon se Pahle ka Bharat *by Satabdi Prakasan, Vidisha, 1988. These lectures were also published in Marathi as* Paramparik Bharatiya Samajik Va Rajkiya Vyavastha Ani Nava Bharatachi Ubharani *as well as in Malayalam in somewhat briefer versions. The compilations of lectures in Hindi continues to be published now and then in a few journals like* Himalaya Rebar *as well as in book form by the Azadi Bachao Andolan, Allahabad.)*

The theme of these talks relates largely to the society and polity of India as it appears to me to have existed just before the beginning of British rule (i.e. around 1750), and in many of the areas which came under direct British occupation or protection later (till around 1820). That the basic concepts and fabric of the society and polity I am describing did not come into being just around 1750 but had existed from much earlier times is obvious.

I begin today's talk with an account of how I came to be personally aware of our archival material. From this, I move to a brief reference to our present general understanding of what our society is assumed to have been like around 1750, or in the decades and centuries preceding it. Next I make some reference to the institutions and manners of British polity in the 18th and early 19th century, and I end today's talk with some mention of the economic differential in Indian Society and of life in India at the top levels before the beginning of British rule, as also what it became soon after we began to be ruled by Britain

The second talk is devoted to a description of Indian society and polity, some of it in detail along with some tabulated data. I also briefly touch on certain other aspects of this society: education, technology, the practice of civil disobedience, etc.

In the third and final talk I will attempt to explain why my presentation may seem so contrary to prevalent understanding and belief about the nature and functioning of Indian society and polity before British rule. Then I move on to our present public and institutional frame, most of which I believe—and with which most of you will perhaps agree—is a continuation of what we have inherited from the way the British ruled India. At the end I suggest a few steps which may possibly deserve consideration and discussion. My hope is that such a discussion, (though not necessarily restricted to what I propose), may possibly help our society to come into its own.

• • •

To begin with, I want to mention to you a certain disquiet I feel about ourselves. This disquiet, I expect, is partly a product of my involvement with archival material. Going through most of it is, for me, like reading high drama, or modern mystery or detective stories: it leads me to an overcharged imagination. Thus, the disquiet I feel may, to a large extent, be without any basis.

I find, however, that many of the points which I am later going to mention to you seem to have been discussed and published in the 1920s and 1930s. For instance, Mahatma Gandhi's *Young India* in the early 1920s published a great deal on indigenous Indian education in the late 18th and early 19th century; on the various crafts of India; on Indian social conditions before the British and on the impoverishment of Indian society during it; on the relatively superior status which the so-called pariahs of South India or the Mahars of Maharashtra had till about 1800, etc. The writers of such articles included not only those who were Gandhiji's followers or admirers but also men like Sir Sankaran Nair, a member of the British Viceroy's council, who expressed similar views. According to Sir Sankaran Nair, the major erosion in the socio-economic status of the pariahs or the social and cultural life in general took place during the previous century and a half. I expect there is much more material of this kind in our early 20th century newspapers, journals and scholarly as well as other works.

It is perhaps true, that though this information had come to the notice of many 50–60 years ago, it was not brought together then to form an integrated picture of Indian society. Even when the latter might have been attempted, it was probably done cursorily or in what looked like a highly romantic idiom.

Gandhiji, in most of his writings, and even more so in *Hind Swaraj* (which he wrote in 1909), tried to give a fairly integrated picture of Indian society and polity as he understood it to have functioned during its long past. As many here may recollect, while writing in *Hind Swaraj* on passive resistance he had indicated that this practice had always existed in India, and he had also then given an illustration of it. It is my belief that it is such an understanding of the working of the Indian mind and society which enabled Gandhiji to commune with it with such great ease, and pave the way for the adoption of much of what he suggested, by the Indian people. As he said in 1944, what he did when he returned to India was to provide a voice to what the people themselves felt and basically already knew. It is true that it was not only this communion between the people and Gandhiji but also his organisational and related skills which could bring about what India was able to do and achieve under his leadership.

Yet, despite what Gandhiji said in *Hind Swaraj* and what was written by many in *Young India*, and elsewhere, about the earlier Indian society and polity, little of it seems to have got internalised and expressed in the institutions which have been managing India since the regaining of freedom. What continues in the governmental as well as the non-governmental spheres is in a great measure that which the British created during the period of the demolition of Indian institutions and structures between 1760 and 1830; or is modelled on the structures they imported and imposed on India for the consolidation of their rule.

By 1920, a fairly substantial section of the elite in India had become alienated from their society; had taken up the manner and idiom of the British; and had begun to mould their personal and public life according to British concepts and modalities. The period of 25 years when Mahatma Gandhi had the supreme leadership of India was too short for battling on several fronts. It may also be true that the elite which joined him—and which thereby inherited political power—did not take him seriously as regards his understanding of Indian society; and could not conceive that such a society could be viable in the modern world. As one of the more enlightened of this elite, and some one who was quite dear to Gandhiji said: how can one accept that the village people have any virtue when they are so ignorant?

However, even if this substantial elite could not internalise the Indian past and shape its future accordingly, if it had any creative capacity it could have certainly internalised what it had learnt from the West, and used this learning, by recasting it into an Indian idiom, for India's benefit. But even in this it has failed dismally so far. I don't have to labour this latter point however, as enough has been said on it from more august quarters in recent months.

Yet, it seems to me that this incapacity to recreate or regenerate has been with us for a much longer period. Perhaps the Vijayanagar *rajya*, as well as the indigenously rooted *rajya*, which the Marathas tried to create in the early 18th century, had not fared very differently than ourselves. Notwithstanding that the inspiration of Vijayanagar came from the great Acharya Vidyaranya and of the Marathas from Samarth Ram Das, both of them seem to have failed to unite society and polity; that is, to make them function according to a shared idiom and shared concepts.

It is possible that most civilisations have such intervals when the links between society and polity get shattered, or vitiated; or, they remain in a state of hibernation. It may be that for several centuries we have been passing through such a phase, and that a time will soon come when India's polity will begin to reflect not only the aspirations and urges of our society, but also its manner and idiom. It is also probable that I am being unduly impatient, and that such processes are already functioning, and will, in due time, make the present split between our society and polity a matter of little consequence. About the time we regained freedom, Gandhiji had written to someone that no quick results should be expected; and that the situation created by an enslavement of 150 years will take at least half that much time to restore India to health.

Yet, even after reflecting on such possibilities and projections, the disquiet I feel does not wholly disappear. I have somehow a feeling that the rather separate worlds in which our society on the one hand and our polity on the other hand have tended to move is due to some deeper and more philosophical causes. Perhaps, the Indian psyche, and the private universe of the Indian individual, are averse to existing in a world in which hostility between groups and areas is a permanent feature. As you will realise, I am putting this before you merely as a layman. But it is my hope that if my disquiet is in any way shared by the learned and the wise amongst us, they will try to look into this question.

• • •

I expect what I have said so far must have made it apparent to most of you that, except for a general interest, I have no academic background or professional training in the art of the historian. Till about twenty years ago, I was more involved with the problems of rural reconstruction, and like many of my age, education, and interests, I was interested in a general way also in questions relating to the rebuilding of a new India. I also may have naively believed in 1947, that such rebuilding and national resurgence was just round the corner. Such a belief seems to have continued with many of our generation until several years later.

But as years passed, these expectations began to take a back seat. It appeared to me, and I suppose to others, that what we were achieving in most fields amounted to very little; and even what we achieved was more a result of certain material inputs rather than of our ingenuity, methodology, or a result of the application of any mental effort on our part. The output of most planned effort seldom seemed to exceed the material input; and the human factor seemed to have played little role in these relatively meagre achievements. Around the same time, I was also of the view, which I retain even today, that the ordinary human being in India, especially the Indian villager, was in no sense inferior to his counterpart in England, or other countries of the West, as regards his ingenuity, capacity to innovate within his circumstances, and in terms of the total amount of hard work done by him during comparative periods. Further, the fact that he was able to produce most of what India needed in agriculture or craft products, with meagre capital and investment, indicated that he perhaps was far superior to the mid-20th century peasant or craftsman of the West.

During the 1950s and around 1960, though I knew that we had what is called the National Archives of India—I often passed it in Delhi—I did not exactly know what relation such archives had to our society, or to our past, or to our lives. But the work I did in connection with rural areas, which included visiting various centres for rural development and the post-1957 institutions of panchayat raj, in several parts of the country, gradually made me conclude that perhaps most of us—while we may have been very dedicated to the objectives we had in view, or may have had a great love for our ordinary compatriots—did not really know much about what these compatriots of ours thought, how they solved any problems which confronted them, what their priorities were. Even more surprisingly, we were quite unaware of the social and cultural past of the particular regions or communities we were concerned with. True, we had some sort of general picture about this past. This picture usually implied that our village folk and their ancestors had wallowed in misery for a thousand or more years; that they had been terribly oppressed and tyrannised by rulers as well as their social and religious customs since time immemorial; and that all this had mostly left them dumb, or misguided or victims of superstition and prejudice. From this we assumed that what we had to deal with was like a blank slate on which we, the architects of the new India, could write, or imprint, what we wished. We seldom thought that these people had any memories, thoughts, preferences, or priorities of their own; and even when we conceded that they might have had some of these, we dismissed these as irrelevant. And when we failed in writing on what we assumed to be a blank slate, or in giving such writing any permanence, we felt unhappy and more often angry with these countrymen of ours for whom we felt we had sacrificed not only our comforts, but our very lives. If I may say so, what I have stated here was, I think, in a large measure shared by most of our generation who were given to social or public work.

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But from about 1960, I began to feel, at least for myself, that I knew very little about these people for whom I claimed to work; I knew nothing of what their habitations or society had been in the past, and not much more of their present day lives. As it has some bearing upon what I later read about our society in the early British records, I may mention a few of the points which I learnt about our society while I was still engaged in this work of rural reconstruction.

One of the early incidents which gave me a different understanding of our village life took place during a study which we had undertaken of the Rajasthan panchayats in 1961. In one particular village (perhaps this was in the district of Sawai

Madhopur), we learnt that there were some irrigation tanks. As I did not find any reference to these tanks in the proceedings of the panchayat, I asked the panchayat members present if any thing ever happened to these tanks. They replied that they were indeed occasionally repaired, etc. On my asking as to who did the work, they said 'we' repaired them. I then asked did the 'we' mean the panchayat. They said it did not mean the panchayat, but it meant those whose fields were irrigated by these tanks. They further described how labour, cash, etc., was collected for the purpose of repair. When I asked why the panchayat did not repair the tanks, they said that this was not the panchayat's work. On my asking them what was the panchayat's work then they replied that the panchayat's work was 'development' and, according to them, 'development' was that which the government wanted them to do. As they understood it, the repair of irrigation tanks did not fall in any development category. So they regarded it as something that they had to do themselves, as had been done for centuries. We had visited this village, like many others, as a team, which included a former member of the first Indian Planning Commission. A young I.A.S. Officer, the Block Development Officer of this area, was also present during this conversation.

The same evening, we visited a village-cum-town panchayat. This panchayat had, just a few months earlier, built a spacious panchayat-*ghar* in which we were then sitting. While looking at their proceedings book, I said to them that the book did not seem to record any decision about the construction of the panchayat-*ghar*. They agreed it didn't include such a decision, but said that it included the entry of the money they had collected for its construction. I asked them when and where did they take the decision to construct this place. They said they had another panchayat in which every section in the village was represented, which they called the *Bees-Biswa* panchayat. According to them the decision to construct the panchayat-*ghar*, and everyone's contribution towards this work, was taken there. I asked them why this matter was not decided in the statutory panchayat. They said the statutory panchayat—I think they called it *sarkari* panchayat—was not the place for such a decision. I then asked them if they needed to take some similar decision again what would they do? Their emphatic answer was that they would take such a decision in the *Bees-Biswa* panchayat, and not in the statutory panchayat.

I heard more or less similar narratives in villages of Andhra Pradesh a few months later. Subsequently, during 1962, I was in Jagannath Puri, and called on the President of the Puri Zilla Parishad. He told me about the shortcomings of the panchayat bodies in the new system: their lack of power, resources, etc., and as is common with us, he had many things to complain about. I told him that while I mostly agreed with what he had said, I would like to know what the position of panchayats, etc., was in earlier times. He then told me that near Puri, there had been 52 *sasana* villages, which had continued as communities with common ownership, etc., for several centuries; but, that these were dissolved after 1937, when we began to implement the national objective of land to the tiller. At my request, he arranged my visit to one of these *sasana* villages: the village of Veer Narasimhapur. My impression after visiting that village was that as regards aesthetics, design, the state of its agriculture and plantation of coconut and other trees, social amenities, etc., the village compared well with any Israeli Kibbutzim, or a village in England, or elsewhere in Europe. I was then told that this was a Brahmin village, which created some doubt in my mind that perhaps it was a very special place. But I was assured that out of the 52 villages there were many which were inhabited by various other communities (including fishermen), and that these were organised similarly.

From 1962 onwards, I began to find traces or residues of such village communities in many parts of south India, especially in Tamilnadu which I visited more frequently. In 1964, I was informed in Thanjavur, that till 1937, it had at least 100 villages which had long been organised as *samudayam* villages; but that these again were, even formally, dissolved because of our national objective of land to the tiller. On further enquiry, I learnt that the long existence of the *samudayam* villages in Thanjavur was brought to the notice of Acharya Vinoba Bhave when he visited there in 1956 or 1957; but that there was no reaction on Vinobaji's part to this information. Later, I mentioned this to an esteemed Sarvodaya friend. He reacted by asking me what did I expect Vinobaji to do? Did I expect him to start researching about it? I replied that I did not expect any research from Vinobaji, but if Vinobaji had felt that his idea of the village community, etc., as expressed through the term *gramdan*, possibly may have had some psychic and historic linkages with his society, and had he mentioned such a feeling to his, then countless, followers, surely at least a few scores of them could have helped him, and thus the country, to establish or disapprove such an assumption.

A more tragi-comic aspect in this narration of how I came to archival exploration relates to the holding of statutorily laid down meetings of the village panchayats at certain intervals. During the early stage of a study of panchayats in Tamilnadu in 1964 and 1965, I found that a large number of village panchayats were actually unable to meet because of the lack of a panchayat building; and, instead, the statutorily laid down meeting was considered as having taken place by circulation of the resolution. Realising that because of factionalism, etc., the members were reluctant to meet at the place of any one member or that of the panchayat president, I asked why did they not meet in the village school. Most villages in Tamilnadu, even in 1964, had a school of some sort and also a large or small school building. They said they could not meet in the school building while the school was on, which was from Monday to Saturday. They then told me that no panchayat business could be transacted on a Sunday, according to the rules and regulations of government. A year or two later, I was to learn that this rule of not transacting any 'public' business on a Sunday dated to around 1800; and that this rule was enacted here in India within a few years of the enactment of an Act in Great Britain pertaining to 'A Stricter Observance of the Sabbath Day', which prohibited most public activity in Britain on a Sunday. Incidentally, such enactments in many matters like the prohibition of stage plays, opening of most shops, etc., or prohibition of privately washing clothes and putting them in the back garden to dry more or less continued in Britain even till recently. And as many here know, the observance of the Sabbath, on a Saturday, is even more strictly observed in the modern state of Israel.

It is facts like the above which made me realise that most of us had completely lost touch with the reality of our country. Simply because our people by temperament were mild and tolerant, and did not throw stones at us, or murder us in our beds—even when they went without food, clothes and shelter—we had thought that they were nearly dead, or wholly inarticulate and assumed that it was for us to determine their future and to initiate them into prescribed activity. While we believed this to be the state of our people, we who had been left in positions of power, authority and what we called knowledge, did not even know or certainly did not comprehend, the laws, regulations, procedures and plans which we administered and believed would herald this new India.

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It is in Madras that I first came in close contact with government records, mostly relating to the 20th century but some to the early and late 19th century also. Two things which I learnt in the Madras archives have some relevance here. They were:

> (1) Around 1805, the district of Thanjavur had around 1800 villages which were known as *samudayam.* These formed about 30% of the total number of villages in the district of Thanjavur then.
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> (2) The governmental revenue assessment fixed by the British in India was fixed at 50% of the gross agricultural produce in Bengal as well as in the Madras Presidency. This fixation was made during the years 1760 to 1820, as and when the British became masters of an area. This particular information initially baffled me and later when its implications sank in my mind, I was aghast.

I tried to share this information with some of my knowledgeable and esteemed friends. These included political personalities, planners, former high officers of government, and many others who were intimately concerned with land and rural problems and cared as much about India's continuing poverty as I did. But for a long time none of them could believe this data. One of them, who had been a district collector and later a minister as well as a planner, was categorical that this never could have happened; that it was impossible for any land to pay such an exorbitant government revenue. A friend, also a historian, but more concerned with the 20th century, told me some months later that the British did fix the land revenue at 50% of the gross agricultural produce; that few Indians today knew this fact; and that the only important Indian who perhaps was aware of it was the first Prime Minister of the Indian Republic.

In the context of *samudayam* villages, a former chief of land reforms in the Indian Planning Commission was of the view that there could not have been any such *samudayam* villages in Thanjavur as this fact had not been mentioned by Beveridge—the celebrated late 19th century British authority on Indian land tenures.

Such incidents and experiences ultimately led me to a sustained study of some of the material in the archives on India. Only then did that I realise what they contained and what purpose they could serve. This path to the archives may indicate the sort of mind I possessed; the search I was pursuing; and explain any subjectivity and erroneous or exaggerated impressions which some may feel have resulted from my approach. But, I leave this for you and others to judge.

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Before I move to a description of what I have understood about Indian society and polity from these British records, I must mention some other points. The first relates to my exclusive dependence on British records. This I realise is indeed regrettable. But, as far as I know, no very detailed Indian records relating to the functioning of Indian society and polity at the primary level are to be had, even today, i.e., nearly four decades after we regained freedom. It is indeed tragic that during these decades, but for a few exceptions in the archaeological sphere, the exploration of our past, especially our institutions, our scholarly and popular concepts, and the nature, details, and the underlying principles of our sciences and technologies, is more or less at the stage where it was about fifty years ago.

I have a hunch that such records must exist, though perhaps, not in every village, town, and district of India, but at least in a few scores of places in our vast land. The places which possibly may have such records will be India's religious and cultural centres, old kingly or aristocratic families, old families of bankers, merchants, etc., and many of those who traditionally functioned as registrars and account-keepers in India. That Indian villages maintained detailed voluminous records is borne out by British and other testimony.

So far our history is mostly based on royal court chronicles, on some stone or copper plate inscriptions, or much more on the writings of foreign travellers; and its structure and direction seem to have been determined less by the data, but much more by a variety of ideological formulations. According to 19th century European formulation, for example, feudalism was a necessary stage in the evolution of society; therefore, it was assumed that feudalism must have existed in India too. As society, according to European notions, is supposed to have had a linear or spiral upward movement, so India also must have had this phenomenon; and hence if the standard of ordinary living in India in the 1860s (for which there is some published data) was at a certain level, this standard must have been at a much lower level 60 or a 100 years earlier. Again, if a Dutch traveller in Jahangir's reign found that Indian food did not suit his palate or stomach (his complaint was that beef was prohibited at that time), this meant that food in India then was poor and miserable, and most ordinary people had a terrible life. But according to the same traveller, even the ordinary labourer in places like Agra ate khichri with butter daily, a statement which is usually ignored.

Or as a prestigious recent economic history of India tries to convey, the life of the royalty and nobility and those in their close circle, was indeed fabulous during India's so-called mediaeval age. As an illustration of such sumptuous living this new history quotes a remark of around 1739 from a writer in Delhi. According to this writer 'in Delhi's bazar a young nobleman could expect to buy only the barest necessities with Rs.1,00,000.' Whether this was meant as ridicule, or was a serious statement of fact, is not mentioned in this history. The inference of such a quotation obviously is that the life of the ruling class or the nobility in all parts of India, prior to the British, must have been very fabulous indeed; and as a corollary of this the life for the ordinary people must have been very hard. Or, if a European writer in the 17th century said that Delhi looked as large as Paris, and modern research finds that Paris then had half a million inhabitants, Delhi by inference must have had a similar number then. Or, lastly, as some royal chronicle of the 17th century says that the Mughal empire (whatever this may mean in terms of area, etc.) had an army and militia of 50 lakhs, assuming that one in every 30 persons (including women and children) was in this army or militia, the Indian empire of the Mughals is assumed to have had a population of 15 crores. And so on and so forth.

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It is possible that numerous local social histories, narratives, etc., are being written today in the languages of India, as well as in other foreign languages which provide much more solid data and sounder hypotheses, of which I am not at all aware. I am indeed sorry for that. My knowledge of languages is limited and does not go beyond my own language, Hindi, and some English which I have learnt over the past five decades. It was, therefore, the English records which I obviously turned to.

My selection of the 18th and early 19th century period also seems to require an explanation. I treat the mid-18th century, or a period immediately before it, as a sort of benchmark point for the understanding of Indian society and polity. If we had detailed records, say for 1700, I would certainly prefer them to those post-1750. To my mind the records prior to 1750 would be, if they are as detailed as the post-1750 British records, much more representative of actual Indian life. What we have in English referring to Indian society and polity is mostly post-1750.

There are certainly a few records in Madras and, perhaps, some in other archives relating to Surat, Bengal, etc., which go back to the period before 1750. A few of the 1680 Madras records describe in some detail the difficulties which the British had with what were known as the Right hand and Left hand caste groupings, and the protests these groups launched against the Madras British authorities. Or, there are a few records, even at this early date, which mention that the practice in Madras was, it possibly prevailed in most parts of India, that the militia and police received a certain proportion of the total agricultural produce of an area, and in lieu of such remuneration, it was their duty to protect all those who contributed to this charge from local disturbance, thefts, etc. In case the police failed to recover any stolen property, it was its responsibility, and that of its superiors, to compensate the sufferer up to the value of his loss. But most of the British pre-1750 record does not have very much to tell about the details of the socio-political structure of that time. Incidentally, there are accounts, as that of Henry Lord, of around 1620, who described in much detail the life of the Banias and Parsis of Surat and then presented the narrative to the Archbishop of Canterbury for his Lordship's judgement on these heathen tribes. Or the travels of Peter Della Valle, from about the mid-17th century, which amongst other matters described the functioning of a school, and the method of teaching, in a village of Karnataka.

The post-1750 records (which really describe the society of particular areas) usually refer to the decade or two following the formal occupation of an area by the British. Naturally, these narratives vary in their quality, extent and depth from area to area—depending on the person who reported, or the condition under which the reports were made.

But to better understand the Indian society of that period, and the manner in which it was broken and the concepts and structures which were tried to reshape it, the more important record is to be found in the archives in Britain. For it is in Britain that the formulation of policies and structures took place, and the thinking which led to such formulations at various levels (political, academic, mercantile) obviously has to be located in a variety of internal British records. What finally resulted from such consultations, etc., in Britain, in the way of formal instructions, is of course available in the archives in Madras, Calcutta, Bombay, Lucknow, and Delhi. Incidentally, what are called Indian archives either have little archival material (except that of British creation); or have an insignificant amount which the British collected or copied from earlier Indian sources.

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Most such internal British record (i.e., what I find relevant in comprehending pre-British Indian society), again relates to the period from about 1740 to 1830. It is true, as Macaulay also said, that the British East India Company in the 1830s was no different from the Company when it was formed in 1600. From the very beginning, it was endowed by the British State with the powers of sovereignty, conquest, and rule; in the same manner as the countless other companies established by England and other States of Western Europe were endowed with such powers, through royal charters, etc., from as early a date as the 1480s. By a royal charter around 1480, King Henry VII of England granted to one John Cabot and his sons, the licence to occupy and set up the king's banners, etc., 'in any town, city, castle, island or mainland whatsoever, newly found by them' anywhere in the 'eastern, western and northern sea' belonging to 'heathens and infidels in whatsoever part of the world placed, which before this time were unknown to all Christians.' The king empowered them to 'conquer, occupy and possess' all such places, the main condition being, that they will give in turn to the king 'the fifth part of the whole capital gained' by their enterprise.

To understand the manner of European expansion, it must be realised that, by and large, these companies were instruments of the various European States. Even when the state and a particular company had their inner quarrel, they were under the military and political protection of the state; and when any company, especially the British company, actually began to conquer and rule any area, it was the state which took effectual charge of the conquered territory. The formal rule, in some instances, may have continued through the particular company (as it did in India in certain matters till 1858), but the decision-making, and the political and military control was effectively exercised by the British State, and the detailed instructions in all instances had invariably been examined, amended, and approved by the state. In the case of India, it was statutorily so from 1784 onwards, but even from about 1750 no major steps were taken by the British East India Company in India without the instructions or approval of the British State. For instance, the British attack on the Maratha Admiral Angre in the 1750s was based on British State policy and instruction, and had little to do with any initiative by the British East India Company.

It has been generally assumed, and western liberal thought perhaps had a hand in spreading such an assumption, that the western states, especially the British, while subjugating the rest of the world were rather democratic and compassionate at home. Nothing seems to be further from the truth than this assumption.

Most of what Britain did in India was not basically very different from what the British State had done in Britain since about the Norman Conquest of England in the 11th century, and which it more or less continued till after 1800. Later on, the same was attempted by England in Ireland from about the 16th century; or experimented upon in North America in the 16th-17th-18th centuries; and the same was continued by the successors of British power in the fast expanding territories of the USA in the late 18th and the 19th centuries.

In a certain sense, because of the largeness of India, or the density of its population, or the unsuitability of Indian climate to large scale European colonisation, what the British did in India in the way of destruction, oppression, disruption, etc., though long sustained, may have been of a slightly milder degree. For instance, inflicting of the death penalty was legal and statutory in Britain for more than 200 offences (including the stealing of anything above 5 shillings in value) till 1818. Further, till about 1830 or so, the infliction of 400–500 lashes (with specially prepared whips) on a British soldier, for what may have been considered a serious offence, was quite common. In India, British executions, hangings, lashings, etc., were perhaps much larger in number, but their intensity, etc., may have been relatively less. Perhaps, even 20–50 lashes, or even the idea that one was to be lashed, was enough to kill most Indians who were naturally unaccustomed to the manners, habits, and the rigour of ordinary British usage. At any rate, it was not possible for the British, or other Europeans (who happened to become rulers in India), to always personally engage themselves in the correction and punishment of those whom they ruled. This does not mean that domestic servants were not caned by their master and mistress, leading at times to death; or that heads of villages and other Indian officers of state did not personally receive lashings from certain British collectors, again leading to the death of many so punished.

Quite naturally, the British officer, in his private and official capacity, initially tried to play the role of the English Justice of the Peace, who had long been authorised in England to inflict summary punishment on any one who seemed to him to deserve it. But in an area as large as India, this was hardly functional; and therefore more sophisticated political, legal and economic devices were used, which could serve similar purposes of control and punishment much more effectively and on a far larger scale. The wiping out of half or one third of the population of an area as a result of fiscal devices (though initially these may not have been devised for such vast destruction), was found much more effective; and in one or the other part of India this began to occur from about 1750 onwards and lasted for some 150 years. In many areas, such catastrophes perhaps occurred every decade.

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The above may seem a rather harsh historical account of British rule and perhaps even far-fetched. Two British statements, the first relating to 1600 Ireland on how best it could be entirely subdued and brought under English obedience, and the second pertaining to 1800 southern India, again dealing with the problem of entirely subduing it, to an extent confirm what I have said above. The first by Sir John Davis, English attorney general of Ireland, suggested the following as a more effective policy for Ireland:

> The defects which hindered the Perfection of the Conquest of Ireland were of two kinds, and consisted: first, in the faint prosecution of the Warre, and next, in the looseness of the civil Government. For, the husbandman must first break the land, before it be made capable of good seeds and when it is thoroughly broken and manured, if he do not forthwith cast good seed into it, it will grow wild again, and bear nothing but Weeds. So a barbarous country must be first broken by a Warre, before it will be capable of good Government, and when it is fully subdued and conquered, if it be not well-planted and governed after the conquest, it oft-soonest return to the former Barbarism.

The second about India by Mr Henry Dundas, President of the Board of Commissioners for the Affairs of India, was sent in a despatch to the Government of the Madras Presidency on 11 February 1801. Advising against a permanent settlement (of revenue, legal arrangements, etc.), it stated:

> There is a material difference between the state of several of the provinces in the Carnatic and those of Bengal, where the measure of the permanent settlement was first taken into consideration. The Bengal provinces were infinitely farther advanced in the habits of order and subordination to Government than most places in the Carnatic. They (i.e. the Carnatic) are not so ripe for the reception of those benefits and blessings intended for them—any attempt to introduce a popular system of order—would be idle and nugatory, till once their minds to a certain extent were prepared to feel the importance of the benefits they were about to receive. This can never effectually be done, till you have suppressed that spirit of rebellion and insubordination, which is so conspicuous in many parts of the Northern Circars. The countries to which this observation applied must be brought to such a state of subjection as to acknowledge and submit to this principle. As they must be indebted to our beneficence and wisdom for every advantage they are to receive, so in like manner they must feel solely indebted to our protection for the continuation and enjoyment of them. We hold these truths to be so incontrovertible.

Incidentally, Mr Henry Dundas' descendants were intimately connected with the British governance of India from early on at highly elevated levels for some six to eight generations till the British quit India in 1947. Quite possibly, at a rather conservative estimate, several thousand British families might have constantly been similarly connected at fairly high levels with the British governance of India from about 1780 to 1947.

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Before I end this rather long and rambling introduction, let me give a description of the life of the people at the very top of the Indian polity. Despite the impressions of luxury and fabulous life created by chronicles of the Mughal court, or the accounts of celebrated European travellers and especially descriptions like the one given earlier on the life-style of the young nobleman of Delhi, the impression which ordinarily comes through from the British record is of a certain simplicity and fragility in India at the top levels. Even in the Muslim ruled Hyderabad, in 1780, a perceptive British officer found it difficult to distinguish the great nobles from their servants. According to him, the only things which seemed to separate the two was the fact that the clothes of the servants looked less clean. It was not that he was fascinated by such a state of affairs. He was, perhaps, actually disgusted with such indiscriminate mixing of the two.

According to one of the more powerful early British Governor Generals, and what he said is echoed by many others before 1800 and even till 10–20 years later, the Hindu rulers in fact spent very little on themselves. But, according to him, they suffered from two great vices. These were that they gave away most of what they had to the Brahmins and to the temples.

It is possible that the terms Brahmin and the temple were used in this period in a much wider sense and included all who were given to scholarship of one kind and another, and to institutions which catered not only to religious needs, but also which served purposes of scholarship, culture, and entertainment and comfort. For instance, in the detailed description of the practice of inoculation against smallpox in India, it is said that the Brahmins performed such inoculation. Obviously, anyone who exercised some intellectual, medical or other professional skill seems to have been taken to be a Brahmin, even by fairly knowledgeable Europeans, in this period.

It also appears to have been the practice in places as far apart as Kedarnath in the Himalayas on the one hand and in the Thanjavur region of Tamilnadu extending to Rameswaram on the other, to provide *chatrams* for the stay and comfort of the pilgrims. Public funds, in the shape of assignments of sources of revenue, including revenue from seaports and similar other sources, were given over to such institutions to cover the expenses of these *chatrams*, etc. In the case of the *chatrams* at Kedarnath, it was further stipulated, that if an unspent balance got accumulated over a number of years, such a balance was to be wholly spent on the *Kumbh*, which happened every twelve years, and a fresh start was made again, beginning from an empty treasury. This may remind many friends here of a similar practice, which seems to have prevailed in India in the time of Harshavardhana. Perhaps much more is known of such practices in earlier and later times.

II

An idea of how Indian society functioned at least at the rural level comes out fairly clearly from the late 18th century record. Perhaps the data (circa A.D. 1770) pertaining to the villages of the district of Chengalpattu demonstrate it best, though in a slightly different way. The data from pre-1800 Bengal seems to tell a similar story.

This data was collected through a survey of about 2000 villages of the Chengalpattu district during the 1760s and 1770s. The survey recorded the total land belonging to each village, the utilisation of this land for various purposes, the net cultivated land in each village (irrigated and unirrigated), and the details of *manyams* (the land which had been assigned to various village institutions and functions). Such assignments were of the tax which any land might have been liable to pay to a duly constituted political authority, whether such authority was at the level of the village, or at any other region, or national level. The assignment customarily did not interfere with the right of the person, or persons who cultivated, or otherwise used such land. The only alteration which took place was that the cultivator of the land, after such an assignment had been made, began to pay the amount of the tax to the assignee instead.

The most important part of this survey, however, concerns the details of the deductions from the total agricultural produce of the village, generally called *swatantrams* (in pre-1800 south Indian records), for the maintenance of the various institutions and infrastructure of the village, and for intra-village institutions and offices. The shares of the produce that were allocated for different functions and different institutions evidently had been determined by ancient custom and usage. This sharing was clearly not merely an economic arrangement, but was a way of defining the role and importance of the various recipients in the village or regional polity.

The following table (*Table 1*) gives the details of these deductions for eight villages: four from the Ponneri area, and four from the area of Carangooly (both part of the district of Chengalpattu, then as well as today). These villages have been picked at random, the only criterion used being, that the amount of land in each of them is relatively larger than in those in their neighbourhood.

Table 1 : DETAILS OF DEDUCTION FOR VILLAGE AND INTRA-VILLAGE INSTITUTIONS/FUNCTIONS IN THE DISTRICT OF CHENGALPATTU (CIRCA 1770)

(Deductions per 100 cullums of agricultural produce, in *cullums*)

Name of Institution or Function for which deduction was made	*Cavnevembacum*	*Naithe-voil*	*Coloor*	*Madoor*	*Purrunoor*	*Caudamagolatoor*	*Coonavaucum*	*Poodapatnam*
	(Ponnery)				*(Carangooly)*			
Land in village (in *caunis*)					696	650	600	650
A. Intra-village	*C M P	C M P	C M P	C M P	C M P	C M P	C M P	C M P
1. Temples (Totals)	3–1–4	1–2–0	2–1–0	1–3–0	1–0–7	2–0–3	4–9–5	4–2–0
(i) Canchipuram	1–0–4(a)	0–4–6	0–0–0	0–5–0	0–11–5	0–11–5	0–11–4	1–0–4
(ii) Chingaperumal	0–0–0(b)	0–0–0	2–1–0(i)	0–0–0	0–5–7	0–5–6	0–5–6	0–6–2
(iii) Tinkitchoor	0–10–0(c)	0–4–5(g)	0–0–0	0–5–0(j)	0–5–6	0–5–7	0–5–6	0–6–2
(iv) Tirkitchoanam	0–10–0(d)	0–4–5(h)	0–0–0	0–11–5	0–11–5	0–11–5	0–11–4	1–0–4
(v) Shrepermadoor	0–2–4(e)	0–0–0	0–0–0	0–0–0	0–0–0	0–11–5	0–11–4	1–0–4
(vi) Perumal	0–2–4(f)	0–0–0	0–0–0	0–5–0(k)	0–0–0	0–0–0	0–11–5	0–0–0
2. Brahmin Scholar (*Poolalogachari*)	–	–	–	–	0–5–6	0–5–7	–	0–6–2
3. Cannoogoe	–	0–9–3	–	0–10–0	0–11–5	0–11–5	0–11–5	1–0–4
4. Dovetraw	–	–	–	–	–	–	–	1–0–4
5. Deshmukh	–	1–6–6	–	0–8–0	1–11–2	1–11–2	1–11–0	2–1–0
6. Palegar	0–2–4	3–4–0	3–6–0	1–2–0	2–4–5	2–6–0	1–11–5	4–2–0
7. Tookery	2–6–0	2–9–0	–	–	–	–	–	–
8. Pirzada	–	0–4–5	–	0–5–0	–	–	–	–
Total	5–10–0	9–11–6	5–7–0	5–4–0	8–8–1	9–9–2	9–7–7	13–0–2

Names of temples marked thus: (a) Harikrishnaswamy, (b) Davadanum, (c) Ragunathaperumal, (d) Vellerigoodaswami, (e) Buttaraja, (f) Buttan, (g) Paliswaraswamy, (h) Chicodier, (i) Colaralghaperumal, (j) Palaswaraswamy,(k) Coombaconoomchicalier

Table-1 (Contd.)

Name of Institution or Function for which deduction was made	*Cavnevem-bacum*	*Naithe-voil*	*Coloor*	*Madoor*	*Purrunoor*	*Caudamago-latoor*	*Coonavau-cum*	*Poodapat-nam*
	(Ponnery)				*(Carangooly)*			
B. Village Infrastructure:								
1. Temples:								
(i) Easwar	0–3–2	0–4–2	0–4–4	0–1–0	0–1–2	0–4–3	–	0–1–2
(ii) Perumal	0–3–2	0–3–2	0–2–0	0–1–0	0–1–2	0–4–3	0–3–0	0–1–2
(iii) Pilliar (Ganesh)	0–3–2	0–2–0	–	0–1–0	–	0–1–7	0–1–0	0–2–4
(iv) Dharmaraj	0–3–2	–	–	–	0–5–0	0–1–2	0–3–0	0–10–0
(v) Amman Padary	0–8–4	0–4–0	0–7–0	0–7–0	0–2–4	0–3–6	0–2–0	0–5–0
(vi) Outside temple	–	–	–	–	0–0–5	–	–	–
2. Dancing Girl *(Devadasi)*	0–2–4	0–2–4	0–5–0	0–2–4	–	–	0–3–0	–
3. Temple Flower Garden	–	–	0–2–4	0–2–0	–	0–1–7	–	–
4. *Choultry* Fund	–	0–2–4	–	–	0–1–2	0–1–7	–	0–2–4
5. Lamp Oil	–	–	–	0–0–6	–	–	0–0–4	–
6. *Vullavan*	0–4–0	0–4–0	0–5–0	–	–	–	0–0–4	0–2–0
7. Vadavarthy	–	–	–	–	0–1–2	0–1–7	0–3–0	–
8. Purohit	0–3–2	–	–	–	–	–	0–3–0	0–1–2
9. Panjagnum	0–6–4	0–2–0	–	0–3–4	0–1–2	0–1–7	0–1–0	0–2–4
10. Davatwam	–	–	0–5–4	0–8–0	–	–	–	–
11. Vada Vadhar	–	–	–	0–3–4	–	–	–	–
12. Vadhar	–	0–4–4	–	–	–	–	–	–
13. Panican	0–3–2	–	0–4–4	0–3–4	–	–	–	–
14. Water Pandal	–	0–3–0	0–2–4	1–2–0	–	–	–	–
15. Pardesi Brahman	–	–	–	–	0–0–5	–	0–1–0	0–2–4
16. Karnam	2–8–4	3–4–0	3–5–0	2–4–3	1–6–7	3–4–0	1–10–7	3–1–4
17. Talliar	–	–	2–6–0	1–0–0	1–0–4	1–3–0	–	1–0–4
18. Landholders	4–7–0	3–4–0	2–6–0	–	0–11–2	0–10–0	0–6–0	3–5–2

19. Cultivators Servants	–	2–0–0	10–9–0	4–7–6	6–11–5	8–7–5	7–8–2	7–8–4
20. Artificers (Carpenter & Blacksmith)	1–10–4	2–2–0	1–9–0	0–10–0	1–4–6	1–6–6	0–6–0	2–4–0
21. Corn-Measurer	0–11–0	0–10–0	1–3–0	0–7–0	1–1–5	1–11–6	0–6–4	1–4–2
22. Barber	0–7–2	0–10–0	0–10–4	0–5–0	0–2–4	0–3–1	0–3–0	0–6–2
23. Washerman	0–7–2	0–10–0	0–10–4	0–5–0	0–1–7	0–3–1	0–3–4	0–6–2
24. Paneseven	0–5–2	0–8–0	0–4–4	0–3–4	–	–	—	0–5–0
25. Combcutty	0–6–2	–	–	–	–	–	–	–
26. Wochen	–	0–3–0	–	–	–	–	–	–
27. Potmaker	0–10–0	0–7–0	–	–	–	–	0–3–0	0–6–2
28. Cowkeeper	0–3–2	0–2–0	0–4–4	0–3–4	0–1–2	0–3–1	–	–
29. Chunam Maker	–	0–2–0	–	–	–	–	–	–
30. Shroff	–	–	0–10–4	–	1–4–4	1–6–2	0–5–5	1–6–0
31. Goldsmith	–	–	–	0–5–0	–	–	–	–
32. Doctor	–	0–2–0	–	0–2–0	–	–	–	–
33. Snake Doctor	–	–	–	–	0–1–2	0–3–1	0–3–0	0–5–0
34. Tope Pandaram	–	–	–	–	0–1–2	–	–	0–1–2
35. Village Servant	–	–	–	–	–	0–3–1	0–3–0	–
36. Irrigation (Yary Fund)	2–1–0	4–2–0	2–1–0	4–2–0	1–11–2	1–11–2	–	–
37. Yary Servant	–	–	–	–	0–4–3	–	0–3–0	–
38. Gram Khurch	0–5–0	0–10–0	0–5–0	0–5–0	–	–	–	–
Total B (1–38)	19–3–2	23–0–0	31–3–0	20–4–7	18–11–5	24–4–3	14–10–6	25–6–6
Total Deductions (A+B)	25–1–2	32–11–6	36–10–0	25–8–7	27–7–6	34–0–5	24–6–5	38–7–0

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*Units of measuring grain in 18th Century Tamilnadu.
C-Cullum; M-Mercal; P-Padi; 8 padi = 1 mercal; 12 mercal = 1 cullum

As will be observed, the deductions in these villages range from about 25% to 40% of the total agricultural produce of each village. Incidentally, according to John Malcolm, a major British military commander and later Governor of the Bombay Presidency (A.D. 1827–30), the deductions for such purposes in villages of Malwa were in the range of 25% of the total agricultural produce. Further, in many of these Chengalpattu villages, there were several other functions for which the deductions were made, like the Malabar (vernacular) schoolmaster, the *Muttum*, the *Siddhum*, the *tom-tom-man*, the *Banian*, the *Fakir*, the oil-seller, the *Totty*, the *Vettiyan*, the Mosque, etc., while a few of the functions mentioned in the above table may not have existed in other villages. Besides, about one-sixth of the cultivated (or cultivable) land was classed as *manyams*. In many of the districts of Bengal (circa A.D. 1770), in the Ceded Districts of Cuddapah, Bellary, Anantpur, etc. (where British power and authority was consolidated by Thomas Munro during 1800–1807), and in many other areas the amount of cultivatable land traditionally and historically classed as *manyam* was as high as half the total land of the area, and perhaps in various parts of India whole districts were denominated as *manyams*, largely for the support of the cultural and religious institutions, but some also for the support of local and regional militias. According to a later (circa 1830) British note, the number of institutions, and individuals who had *manyams* assigned to them in the districts of the Bengal Presidency (Bengal, Bihar, etc.) ran into tens of thousands in each district and in one district the number of claimants of *manyams* was around 70,000 in the 1770s.

As may be observed from the data of the eight villages, the deductions for individual institutions and functions varied a great deal. But by and large, wherever there was irrigation, around 4% of the total agricultural produce was allocated for its maintenance. Similarly, the Devi, Dharamaraj, and what was known as the village temple (there is no example of the latter in these eight villages) had generally much larger combined allocations than the combined allocations to the Easwaran, Perumal and Pilliar temples.

According to a 1818 British survey, the district of South Arcot had over 7,000 great, medium and small temples, and several hundred *muttums* and *chatrams*. Most other districts in the Madras Presidency where such a survey was ordered, reported 3,000 to 4,000 temples, etc., and at a rough estimate in 1800 the Madras Presidency might have had about 1,00,000 temples, *muttums*, and *chatrams* of varying importance and size. The number of such institutions for the whole of India might have been in the range of 5,00,000 in A.D. 1800. Possibly around 5% of them might have been places of Islamic worship and learning; and perhaps around one thousand those of Christian worship, most of which would have been in Kerala.

The *Karnam* or Conicoply (which really implied the office of the registrar of the village, a sort of secretariat, rather than a single individual) generally had an allocation of 3–4% while the *Taliar* (i.e. the village police, which may have included several persons) generally had an allocation of around 3%. Incidentally, it may be useful to know that the offices of the *Taliar*, the Corn-Measurer, the settler of boundary disputes, and a few other village offices, were generally filled by persons from the Pariah and allied castes. As many will know in Maharashtra, it was the Mahars who constituted the village police. It is also worth noting that in cases of theft etc., if the police, or the *Palegar* (the head of the militia and perhaps one who also acted as a modern Inspector General of Police for his area) were unable to recover the stolen property, they were expected to compensate the aggrieved party from the incomes allocated to their offices.

Though this and similar data requires a much deeper analysis, it does imply that every person in this society enjoyed a certain dignity and that his social and economic needs were well provided for. Food and shelter seem to have been a natural right, given India's cultural norms, and made easier by India's fertility, etc. According to a historian of medieval India, the only data which was available about the expenditure details of the pre-British rulers of Delhi referred to the feeding of the people who required such a provision. It is possible that perhaps this was the major expenditure of this state and the state had adopted this practice from the prevalent norms of Indian society.

As is clear from the above table, the deductions were not merely for internal village institutions—varied and complex as these deductions were—but also for the support of the intra-village religious, cultural, political, accounting, and militia purposes. Thus, while the village or the locality (for it may be taken as granted that similar arrangements though based on other productions, earning, etc., also existed in towns and cities) managed and organised its own internal affairs and thus in a way could even be symbolised as an autonomous republic or corporation, it was by no means isolated, or unlinked from other localities. In fact it seems to have contributed to the support of the intra-local systems, and it can reasonably be assumed that the intra-local systems looked after the requirements of systems, which in their own Indian way provided support and integration to much larger areas. In a sense, the polity which such data suggests is the kind of polity that Mahatma Gandhi tried to spell out in his idea of the oceanic circles, where the innermost circle retained the utmost internal autonomy, and only such fiscal, moral and other support was extended by them to the outer circles, essential for performing those residual tasks which could not clearly be performed at any local level.

Thus, it is, that, while a fairly large proportion of the production went towards the maintenance of the social infrastructure and its small and great institutions, the proportion which went to the apex state (whether at regional or at a more central level) was fairly small. According to early British authorities, there had been no land tax in Malabar till A.D. 1740, none in Canara till the 15th century, and an insignificant amount in Ramnad, etc., even in the 1790s, and no more than 5% to 10% even as late as the early 19th century in Travancore. That any land tax (for the purposes of the Apex State) which had been levied in India had historically been very low also is apparent from the amount of rent (or share of the agricultural produce) which the cultivators of the *manyam* lands paid to those who held these *manyams* till at least A.D. 1800. According to Thomas Munro, it was no more than one-fourth of the rate of revenue which the British had imposed; and at times, according to him, the cultivator only paid what he wishes, to the holder of the *manyam*. The Bengal collectors in the 1770s report a similar situation and mention that because of the heaviness of the British land-revenue (again about four times the traditional rate) and because the *manyam* lands were around one-half of the cultivated land, in many districts, the cultivators in large numbers tended to give up lands which paid revenue to British authority and instead moved over to cultivate the *manyam* lands. This problem of cultivators leaving land paying revenue to British Authority and moving on to *manyam* land continued even in 1820 in the Madras Presidency. Thomas Munro as Governor then threatened that such holders of *manyams* who allowed this to happen would have them confiscated. It may, in the context of the above data, be worth knowing that the exchequer receipts of the Mughal rulers (A.D. 1556–1707) at no time exceeded 20% of what was termed as the total revenue of the empire (perhaps a wholly notional estimate); and in the reign of Jahangir, these receipts were no more than 5% of this supposed total revenue. It may also be worth noting that the land tax in China historically is said to have been about one-sixteenth of the agricultural produce. If this was the position in China it may be assumed that a similar arrangement had also obtained in other areas of East and South East Asia as well. The maximum which the *Manusamhita* ordained in India was one-sixth; but what it seems to have advocated far more was one-twelfth of the gross agricultural produce. Incidentally, it may be mentioned that for various reasons, the *Manusamhita* was given great importance by the British from about 1780 onwards. Around 1815, when London had begun to discourage the translation and printing of various Indian texts, the published version of the *Manusamhita*, with the commentary of Kulluka Bhatta, was the only book which was encouraged to be printed again.

It is true, however, that in 18th century Western Europe, the land rents collected by the landlords ranged from about 50% to 80% of the agricultural produce. And it seems that the assumption that in India the situation was similar to that in 18th century West Europe is one of the bequests which the Indian historian and intellectual had received from his Western masters.

The village (or the locality) having contributed for the maintenance of the cultural and religious institutions, for the support of the accounting, political and militia systems (the *Cannongoe*, the *Deshmukh*, the *Palegar*, etc.) probably also made a contribution of around 5% of the above deductions (which would have meant an immense amount as it must have been received from tens of thousands of localities) for the direct support of the apex authority (or, to Mahatma Gandhi’s outer-most circle). That such arrangements led to a militarily weaker system (at regional or wider levels) may possibly be true; but it is quite possible that the elements of such military or institutional weakness lay elsewhere, and not primarily in the decentralised fiscal and social arrangements of Indian policy.

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There seem to have been various systems of land-rights in different parts or regions of India and also in the same region. But most of these systems seem to have assumed the supremacy of the village community over the land, its disposal, or the way it was worked. There were villages where the village community (perhaps the community of only those who cultivated land and those who held *manyams* and not necessarily of all the families in the village) seems to have been organised as a *samudayam.* While its members had specific shares in the land of the village, the land which any of them cultivated was changed from time to time. Such a change in the district of Thanjavur, where around 30% of the villages were classed as *samudayam* in 1805, was stated to be based on the assumption that a certain alteration occurs in the fertility of all land from time to time, which creates inequality amongst the members of the community; hence, occasional redistribution was considered necessary. Again in Thanjavur in 1805, the number of mirasdars (i.e. those having permanent rights in land) was put at 62,042, of which over 42,000 belonged to the *sudras* and castes below them. The number of cultivators of the group termed Pariah in the Baramahals (the present Salem district) was estimated at 32,474, out of a total population of around 6,00,000 just before 1800. The number of mirasdars actually listed by the Chengalpattu collector in the district in 1799 was put at 8,300. But the collector was of the view that the actual number of mirasdars there, was about ten times more i.e. around 80,000. In 1817 the number of mirasdars in 1080 villages of Tirunelveli district was estimated to be 37,494. It is unnecessary to add that throughout India, the rights of the actual cultivator were permanent and hereditary; and these began to be scrapped by the British from 1790 onwards: first, to enable them to realise a greatly enhanced land revenue; and second, because British ideas of ownership did not admit of any such cultivator rights, even in Britain.

With regard to agricultural production and the wages in agriculture, according to the journal *Edinburgh Review* (A.D.1803–1804), the wages of the Indian agricultural labourer in the Allahabad-Varanasi region around 1800 were in real terms substantially higher than the wages of his British counterpart. The journal at that time wondered that if these wages were so high at this late period of great economic decline, how much higher such wages must have been when they were first established. According to a recent computation by an economist of the University of Madras, the wages of the agricultural labourer in Chengalpattu during the period 1780–1795 at 1975 prices would have been about Rs.7.50 per day, while in 1975 itself such wages were Rs.2.50 per day only. The productivity of wheat in the Allahabad-Varanasi region was more than double of that in England on similar land. Further, it may be mentioned that Britain, like the rest of Europe, produced only one crop a year, while in India many lands produced more than one crop.

An idea of the Indian economy and consumption patterns is provided by some 1806 data from the district of Bellary. It is concerned with an estimation of the total consumption of the people of the district, and further indicates the detailed consumption pattern of the three categories of families in which the population was divided by the British authorities.

The three categories were: first, the more prosperous (total population: 2,59,568); second, the families of medium means (total population: 3,72,887); and third, the lowly (total population: 2,18,684). According to this estimate, the consumption of the first article in the schedule, food-grains, differed in quality and value between the families in the first category on the one hand, and those in the second and third categories on the other. But the quantity of food-grains estimated to have been consumed in all three was the same, i.e. half a seer of grain per person per day. The schedule included 23 other items including pulses, betel-nut, ghee, oil, tamarind, coconuts both fresh and dry, drugs and medicine, cloth, firewood and vegetables, and also betel-leaves (*pans*). As illustrative of the pattern of this consumption, the number of *pans* consumed per year in a family of six is given as 9,600 *pans* for the first category, 4,800 for those in the second category, and 3,600 *pans* for those in the third category. The consumption of ghee and oil was in the proportion of 3:1:1 approximately and of pulses 8:4:3. The total per capita per annum consumption was estimated at Rs.17–3–4 for those, belonging to the first category Rs.9–2–4 for those belonging to the second category, and Rs.7–7–0 for those in the third category.

The pattern indicated in the above para is, of course, very broad. In reality a number of people may have had a much higher consumption than the average of the first category. An indication of the extent of such differential between the really high and the really low is provided by some 1799 data from the Karnataka area. After much enquiry about the incomes of the officers of the state in Tipoo's domain, the British came to the inference that the highest paid officer of Tipoo (the governor of the fort of Chitradurg) had a total salary of Rs.100 per month during Tipoo's reign. The wages of an ordinary labourer in this area at this period was about Rs.4 per month. The new differentials which were brought into being around this period by the British are indicated by the salary of the British district collector (about Rs.1,500 per month) and a member of the British Governor's Council receiving Rs.6,000–Rs.8,000; while the wages of the labourer were constantly reduced during 1760 to 1850.

What the Indian labourer, craftsman, etc., received as wages around 1850 was in all probability no more than one-third or at the most one-half, of what he would have received till around 1760. The new disparities, however, were not altogether limited to British salaries. Where state policy so dictated, similar decisions were taken with regard to the emoluments of Indians at high levels. An example is provided by the raising of the personal allowance of the Maharana of Udaipur. Till Udaipur came under British protection in 1818, the Maharana was supposed to have had an allowance of Rs.1,000 per month. Within a few months of British protection, while various other expenses of the kingdom were either abolished or reduced, the allowance of the Maharana was raised to Rs.1,000 per day.

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Before arriving at a conscious policy regarding education in India, the British carried out certain surveys of the surviving indigenous educational system. A more detailed survey of it was carried out in 1822–25 in the Madras Presidency (i.e. the present Tamilnadu, the major part of the present Andhra Pradesh, and some districts of the present Karnataka, Kerala and Orissa). The survey indicated that 11,575 schools and 1,094 colleges were still in existence in the presidency, and that the number of students in them were 1,57,195 and 5,431 respectively. Much more important and, in view of our current assumptions, unexpected information which this survey provided is with regard to the broader caste composition of the students in the schools. According to it those belonging to the *Sudras* and castes below them formed 70%–80% of the total students in the Tamil speaking areas, 62% in the Oriya areas, 54% in the Malayalam speaking areas, and 35%–50% in the Telugu speaking areas.(The tables relating to the details of this education are omitted here as they are given in *The Beautiful Tree* (Vol.3 of the *Collected Writings*).)

The Governor of Madras estimated that over 25% of the boys of school-age were attending those schools; and that a substantial proportion, and especially girls, were receiving education at home. According to data from the city of Madras, 26,446 boys were receiving their education at home, while the number of those attending schools in Madras city was 5,523. The number of those engaged in college level studies at home was similarly remarkable in Malabar: 1,594 as compared to a mere 75 in a college run by the family of the then impoverished Samudrin Raja.

Further, again in the district of Malabar, the number of Muslim girls attending school was surprisingly large: 1,122 girls as compared to 3,196 Muslim boys. Incidentally, the number of Muslim girls attending school in Malabar 62 years later in 1884–85 was just 705. The population of Malabar had about doubled during this period. It is possible that most higher education in 18th century India was imparted in small groups, and by single teachers. But a report on the University of Navadweep in Bengal for around 1790 stated that the number of students there was 1,100 and the number of teachers 150.

Similar information is available, in the British records, on 17th–18th century Indian science and technology. Much more is of course known today about them, partly due to extensive work in this field in the 1920s and 1930s, and because of more recent research by many scholars. We obviously know a great deal about the manufacture of iron and steel in India since ancient times, and of its world-wide fame and superiority. As has been established recently, iron was being manufactured in India, in places like Atiranjikheda in Uttar Pradesh, at least as early as the 12th century B.C., but what is little known is that even around 1800 the industry was wide-spread and flourishing and the technical details of this manufacture were highly sophisticated. A rough estimate of the number of furnaces which manufactured iron and steel may be put around 10,000 around A.D. 1800; and each of them seemed to have had a potential capacity of producing about 20 tons of very superior steel annually, if the furnace worked about 35–40 weeks in the year. These furnaces were very light and could be moved by bullock carts.

That 18th century India produced artificial ice by freezing water, and not in Himalayan winter but in moderate cold weather in places like Allahabad, or that India long had the practice of inoculation against small-pox, and that the art of plastic surgery had continued to be practiced in late 18th century India, centuries after Susruta and Charaka, and that this practice of plastic surgery was noticed by the British initially here in Pune, may come as a surprise to many. Similar surprise may be felt at the details of Indian agricultural practices, the agricultural implements which the Indian peasant used, and the much higher productivity which he achieved. Incidentally, a set of the implements (including drill-ploughs, etc.) was sent to Britain by one of the pre-1800 British Collectors from a Madras Presidency district, with a view to help improve some of the agricultural implements then used in Britain.

The reality indicated by the above data does not seem to have depended merely on some dead custom or mechanical routine. A moral sense about things seems to have been deeply entrenched; and whenever it seems to have been violated, there was much recourse to opposition, protest, *dharna* or *traga* or to peasant movements, to even what in modern usage may be called civil disobedience. The prolonged protest against the imposition by British authority of a tax on houses in 1810–11 was centred in the city of Varanasi. According to official reports, the whole city had completely stopped work for days together creating a situation that not even the dead could be cremated and had therefore to be cast in the Ganga without the performance of customary rites. According to the Varanasi collector, over 20,000 persons had been continually sitting in *dharna*, while another estimate placed the number of people collected between Secrole and the city at more than 2,00,000. The data on the frequency of peasant movements in Canara, Malabar and parts of Maharashtra is indeed vast.

One of the early documented protests against the salt tax took place at Surat in the 1840s. A more curious case of protest relates to two men of Nagore and Nagapatnam area in Tamilnadu just before 1800. They felt wronged regarding their claim to some land and in protest climbed the spire of a temple and threatened to kill themselves by jumping from it unless their grievance was redressed. As a result, the men were promised that the wrong would be righted and they agreed to climb down. The newly established British collector, however, did not take kindly to such a solution.

While protest in the form of *dharna, traga,* etc., was resorted to when the populace felt that they had been wronged by some particular action of the political authority, and when such a protest occurred, it was taken, by the relevant authority, to be a legitimate expression of the political process and as an occasion for reviewing the disputed action. Yet recourse to such protest was perhaps not often necessary. It seems that the polity allowed for continued dignified dialogue between the populace and the representatives of the political authority: the king and the *Palegars,* etc.; and dignities due to the populace in such dialogue were sanctioned by long-standing custom, which continued to operate to some extent even during the early phase of British occupation. In South India, the offering of presents, usually in the way of a piece of cloth, a shawl, etc., by the British governmental authority to the heads of villages or even ordinary peasants, who happened to visit such authority, was all too frequent till about 1800. Where the British had yet to learn this gesture, and the gesture was still important to the British as their consolidation was not yet complete, the villagers themselves suggested the offering of such presents, and even volunteered to defray the expenses of these gifts themselves, as happened in Baramahals in 1792. According to another report, from Ramnad in 1796, even those who had to present themselves before the British courts to sign bonds of good conduct expected to be offered, and received, betel at the cutcherry.

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III

I had tried to indicate in the previous lecture that just two centuries ago, we had an organised and functioning society and economy in most parts of India. Not that the society had no travails of its own, that it had no wars at all, that it had no social and political disturbances. To an extent it was disturbed from time to time: neighbouring polities quarreled with neighbouring polities; and many areas of the country for long periods were overcome by such conquerors and adventurers whose main aim was plunder, and who did not seem to share the conceptual world of those whom they had over-run. Such incursions, wherever they happened and succeeded, naturally created a split between society and polity, and the fallout from any prolonged alien incursions had its influence over much larger areas. Even many of those areas which were not directly affected, at least for any length of time, by foreign conquerors and adventurers, were put on the defensive. Their defensiveness and the changes which that brought about tended to sour the relationship between the local society and the larger polity. As is well-known, the Vijayanagar *Rajya* was created with the blessings and support of the *acharyas* of the great Sankara *Math* at Sringeri. In all probability it was also supported by neighbouring smaller *rajyas* all of whom wanted to counter the threat of external incursions in southern India. But even the Vijayanagar *Rajya* is said to have raised its revenue assessment from the traditional to of the produce to of it (which latter was permitted by the Dharmasastras only in a period of great crisis) and made it a permanent feature. Such an act, if true, is indicative of the tensions which such defensive situations and consequent unjust policies must have created in the affected society.

Another illustration of a similar nature is provided by the expansion of Maratha power in most parts of India during the 18th century. The process of this expansion led the Marathas to bring other Indian rulers under their supremacy. To symbolise this, and because of the needs of expansion, they introduced the levy of *chouth* (i.e. the Marathas demanding a tribute of of the supposed revenue of the particular area). Naturally, this was resented by many, especially by the ancient *Rajyas* in Rajasthan, and such non-recognition of supremacy or non-payment must have at times forced the Marathas to take to the plunder of the recalcitrants. If one concedes that the Marathas were trying to free India, bringing it back to its indigenous polity, and had to adopt such measures only to achieve such an objective what they did may be considered excusable. But it seems that despite such possible objective the Marathas really did not know how to go about it, as is evident by their adoption of the idiom and practice of the Mughals, and further by their failing to maintain even their own cohesiveness.

However, in spite of such disturbances, either because most of the polities of India continued to share at least a minimum conceptual framework and retained similar social and cultural priorities, or because the political and organisational framework which the alien conquerors, prior to the European entry into India, brought with them was much more elementary, and in no sense could become as stable or deep rooted as what had existed in India, the society and polity of India as we have seen above was in a fairly flourishing state even as late as the 1750s, and in many areas till around 1800. The living standard of the people (or in 18th-19th century British parlance, of the lower orders) seems to have been adequate and appreciably higher than that of similar classes in Britain around 1800; productivity in agriculture was much higher than in British agriculture; agricultural tools, implements and practice were diverse and sophisticated; the crafts not only of the celebrated textiles, but also the production of iron and steel, of various chemicals and dyes, of gur (jaggery) and sugar, the construction of ships, the art of building, or the craft of the digging of tanks as well as river and road transportation compared and, perhaps with advantage, to that which prevailed elsewhere in these spheres. Society and polity was highly organised, and had an incomparable sophistication in its various arrangements.

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If what I have been saying is based on reliable historical data, how is it that the picture of Indian society and polity, which generally prevails today, is so very contrary to what I have represented? It is not easy to answer such a question. Nearly two centuries have elapsed between the society and polity which I have described and the present. In between, we have not been our own masters. Even the privileged amongst us (including even the great maharajas, nawabs, bankers and what remained of our traditional teachers and scholars of ancient learning) have been deprived of all public and social initiative, and the vast majority of our people during most of this period existed under sufferance, and at the very edge of physical survival.

That this latter picture is not overstated is confirmed by a variety of late 19th century and early 20th century writing, by illustrious Indians like Dadabhai Naoroji, R C Dutt, and countless others. Even Englishmen, starting in 1824 from Thomas Munro himself (who seems to have been having an introspective interval at the time, but perhaps with a view to make British rule more stable) and ending with men like John Bright, William Digby, and Keir Hardie corroborated this fact. So, what conclusion do we draw from such presentation of the state of India in the 19th century?

Lacking hard data for the earlier period, or having neglected it thus far, the conclusions which we draw from Thomas Munro's or Dadabhai Naoroji's narration largely depend on the ideological position which we subscribe to. Leaving aside the admiration and praise which men like Voltaire or Prof W Robertson of Edinburgh, and others had for the then Indian civilisation, its manners and accomplishments, there have been two main western approaches of judging India. Both of these treated India as more or less barbaric. It is possible that both approaches drew their inspiration from the ancient Greeks, for whom the rest of the world was sunk in barbarism. The first was the evangelical Christian view, which in Britain was very forcefully and effectively put across by Mr William Wilberforce, and his great many followers, the more important of them being known as the saints or the Clapham sect. For them, it was impossible to conceive that there was any virtue in India; and it was axiomatic for them that India was sunk in superstition, ignorance, misery, and wretchedness. Only their use of the terms ignorance, misery, wretchedness, etc., was according to the then current British Christian terminology; and was used by them in the Christian religious sense (i.e. their belief that the people of India were in constant misery and sunk in wretchedness because of their ignorance of Christianity), and not as regards the material or secular condition of the people of India. For them, even if the Indians were all literate and scholars, and led the most luxurious worldly lives, it was all worthless, as long as they had such life without the knowledge of Christianity and a belief in it. A large number of British officers and many British writers on Indian affairs subscribed to such a view till the end of the 19th century and many even till later.

The main author of the second view who weighed Indian society and civilisation from the pedestal of materialism was James Mill. For him the highest form of civilisation, was a successful military civilisation. Consequently, he was all for manly virtues and, according to his measure, India was in fact very effeminate and so came very low on his scale of civilisation. Being the celebrated author of the voluminous *History of British India*, considered the major text about India (which every British officer, who came to India had to digest from 1820 onwards), it was natural that James Mill's strictures and judgement had even greater sway with the British who ruled India, than even the strictures of William Wilberforce.

James Mill was followed a few decades later by Karl Marx. Though not a great admirer of British imperialism, Marx was even much less an admirer of Indian civilisation. Perhaps, like many of us, he felt great scholarly anger regarding the material misery which British rule had brought to India; and being a humanist, perhaps, loved the Indians no less. But as a western scientific theoretician, he saw no point in anything which the Indians did or had; and felt that however cruel the British might have been, India deserved all that the British did to her. To him the only solution for India was its westernisation; and such westernisation had to come only through the agency of a victorious European working class.

Because of her defeat, two things happened in India at the level of knowledge and its promotion. The first was that traditional Indian scholarship withdrew itself from the arena of social affairs, and, to the extent it could, under the very adverse new circumstances, wholly immersed itself in the sacred texts or ritual. The second was that from about 1830, the British began to establish a new knowledge elite in India. This elite had to be brought up on a very selective British educational and cultural content. This elite in time created various sub-elites; and thus, over 4–6 generations, the new literate and scholarly India mainly knew and believed what they had been taught by this selective British system. It is true that some of the brilliant ones amongst these elites began to treat themselves as equal to the British of similar education; and when the British tried to put such persons down, some of these brilliant Indians turned critical and hostile. It is in this context that a prominent governor of Bengal wrote in 1875: 'No doubt the alumni of our schools and colleges do become as a class discontented, but this arises partly from our higher education being too much in the direction of law, public administration and prose literature, where they may possibly imagine, however erroneously, that they may approach to competition with us. But we shall do more and more to direct their thoughts towards practical sciences, where they must inevitably feel their utter inferiority to us.'

I suppose, it can be assumed, that when even this teaching of practical science did not fully serve the purpose the next change was towards the teaching of the simple version of the western social sciences; and, after that, to equally simple versions of the western philosophy; and later to the particularly literal brand of Marxism, which to a greater or lesser extent has been affecting the thinking and assumptions of our educated elite during the past half century.

Another point which may make many suspicious of the picture given earlier is our belief in *Satyameva Jayate* (that truth ever wins). If our pre-British society was so desirable, etc., why did it get defeated? There is no appropriate answer to it except perhaps that *Satyameva Jayate* must not be taken too literally, and has to be appreciated in relation to a much larger canvas. That the best organised and highly powerful societies do often lose to others, or to circumstances, is a commonplace of man's history.

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We can now attempt to establish some link between the past described so far and our present. It is in this context that one can perhaps say that the society and polity which was envisaged by Mahatma Gandhi for a free India (and by others who shared to a large extent Gandhiji's ideas and concepts) was very similar, at least in its structure and form, to the society and polity which had widely prevailed in India before the onset of British rule. It may be claimed that what Gandhiji envisaged was founded on much deeper and stronger foundations. It may also be argued that large parts of this 18th century society and polity, due to historical and spiritual causes, had perhaps been reduced, more or less, to a relatively hollow shell, without much real inner cohesion or recreative capacity by the time it came under European dominance.

It can perhaps also be claimed, that even if the 18th century type of Indian society and polity had retained its cohesion and a capacity for recuperation, it still may not have been possible for it, in the long run, to withstand sustained European pressure and encirclement. As I mentioned earlier on, most other civilisations in the world began to succumb to Europe from 1500 onwards. Many of them which were numerically as large as Europe (as the civilisation of the Americas was till A.D. 1500), in fact got actually more or less annihilated by European pressure. A few others (like Japan) were to an extent able to save themselves, only by isolating themselves for over two to three centuries, from this European onslaught.

Moreover, it does not seem that it was the supposed scientific quest of the late 15th century Europe, or the enlightenment produced by the European renaissance, or Europe's supposed democratic norms, which led to its expansion in the world from about the end of the 15th century. In the late 15th century, or even three centuries later in the late 18th century, Europe was in fact deficient in most of these in comparison to many other areas, like China, etc. The nearest parallel to the expansion of Europe from about 1500 onwards is to be found in the expansion of Islam soon after the death of Mohammed, or in our own times in the expansion of the Marxist states and categories from the time of the Bolshevik revolution in Russia in 1917. Contrary to popular notions, it is not the scientific or the democratic spirit which won the world for Europe, but rather characteristics contrary to them.

Because of the largeness of the area and population of India, and because of the impossibility of ever adequately colonising it with people of European stock, and much more because it was realised that India could be a source of great productive wealth to Europe only if it had an immense number of people to labour but under total subjection, the British occupation of India was naturally primarily concerned with the subjection of India, and the drawing of the maximum possible tribute from it. In this process it eliminated whole populations where it needed to; or promoted or looked upon with indifference at unimaginable numbers of deaths by famine, hunger and consequent disease. To make such subjection prolonged, and relatively easier, it had to smash the earlier framework of Indian society and polity, and give it such new structures which it could neither comprehend nor master. Obviously, the basic elements of these new structures had long been tried and found to be of great utility in the establishment and maintenance of a steep hierarchical order in Britain itself. When applied to India, these were at times given an Indian garb, and variously mixed up with some similar Indian elements, to make them look more legitimate.

In the early days of this archival exploration, Shri Jayaprakash Narayan, after going through some of the data relating to the dismemberment of India by the British, had once asked: If the British had gone thus far in their task of destruction, why did they not complete the job of total social dismemberment? I had no answer to it then; and consequently had mumbled, that it seemed that after a certain stage, perhaps after 1857, the British had felt exhausted, or had lost interest in making any new efforts, or innovations. But it seems to me today, that this seemingly half-done job of dismemberment was in reality very deliberate. Once having realised that India could not be adequately colonised by European stock, the job was to make India a permanent source of surplus-value, or a supplier of raw products (both in materials and men), or a market for certain types of British manufactures. This was possible if India was broken up and sufficiently atomised; with the broken up constituents placed in opposition to one another, and the whole left in a stagnating state. As any perceptive and experienced administrator of present day India knows, this in-built situation of stagnation, where the total result of state action in most spheres more or less, amounts to a holding-on operation is true of the British created system we retain in India even today. That the pre-1947 position was even of greater deliberately induced stagnation is obvious from the huge record, which I suppose is one of the major useful endowments that the British have left to us. That Mr Winston Churchill even considered reducing Germany to a pastoral area, after its defeat in 1945, merely indicates the working of the ways of the European and British states and the elite which manage them.

What was suggested by Mr Churchill for Germany in 1945, obviously had been applied at various periods by Europe to their own people, as well as, in the wide world, where Europe became dominant especially from 1500 onwards. What happened to the people of western and central Africa, and to the people of America (who were estimated at 9–12 crores around A.D. 1500) is too gruesome to recount here. But most of this was attempted in India too, possibly on a relatively moderate scale. The cannon-ball firing of disobedient Indian soldiers from the mouths of guns (1760 onwards), or the flogging of Indian officers of the state who for one reason or another displeased the superior British officer, or the more extensive flogging of village heads, or of domestic servants, and much more the flogging, branding and executing of those who resisted British rule, may be assumed to have been necessary to bring about and maintain total subjection and subordination. What played even greater havoc was the constant enforcement and institutionalisation (from 1760 to about 1920), of the practice of extensive forced labour and of extracting forced supplies, largely for military but also for civilian purposes. A high official of the government of India in the 1880s justified the practice, by saying that the people have to bear some suffering for the good of the state. 25 years later, another high official, in rejecting the recommendation of the British commander-in-chief that soldiers on leave might be exempted from such forced labour, stated that in the concerned area even the priests of the temples, much higher in status to mere soldiers, were liable to give such forced labour. Even more than subjection and subordination, the need of the state created by the British was to reduce the people to such a condition, that they got deprived not only of initiative but even more so of their sense of dignity. It seems that from some early period, (perhaps from the time of the Romans), the dominant approach of Europe, and of those who exercised power was to treat the world as a sort of zoo. Though, indeed, the holders of power in Europe were often kind and loving to those subjected to them, yet it seemed to have been inconceivable to them to grant any autonomy to those who happened to be weaker than them. This matter can perhaps best be investigated by our philosophers.

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One need not dwell long on the individual and physical suffering which the people of India experienced during some 8–10 generations of British rule. These were immense. One of the major consequences of such suffering has been that it has left the majority of the present descendants of these generations physically emaciated, without much hope, and rather in a state of coma. How a Bengali woman described what had happened to her, and her perception of it, is provided by the following which was published in a Bengali newspaper in 1828. She wrote:

> To the Editor, *The Samachar*,
>
> I am a spinner. After having suffered a great deal, I am writing this letter. Please publish this in your paper. I have heard that if it is published it will reach those who may lighten my distress and fulfill my desire. Please do not slight this letter from a poor sufferer.
>
> I am very unfortunate. It will be a long story if I were to write all about my sufferings. Still I must write in brief.
>
> When my age was five and a half *gudas* (22) I became a widow with three daughters. My husband left nothing at

the time of his death wherewith to maintain my old father and mothers-in-law and three daughters. He had several businesses. I sold my jewellery for the *shraddha* ceremony. At least as we were on the verge of starvation God showed me a way by which we could save ourselves. I began to spin on Takli and Charkha.

In the morning I used to do the usual work of clearing the household and then sit at the Charkha till noon and after cooking and feeding the old parents and daughters I would have my fill and sit spinning fine yarn on the Takli. This I used to spin about a tola. The weavers used to visit our houses and buy the Charkha yarn at three tolas per rupee. Whatever amount I wanted as advance from the weavers, I could get for the asking. This saved us from cares about food and cloth.

In a few years time I got together seven *ganda* rupees (Rs.28). With this I married one daughter. And in the same way all three daughters. There was no departure from the caste customs. Nobody looked down upon these daughters because I gave all concerned, the *Ghatakas* and Caste people, what was due to them. When my father-in-law died I spent eleven *gandas* rupees (Rs.44) on his *shraddha*.

This money was lent me by the weavers which I repaid in a year and a half. And all this through the grace of the Charkha. Now for 3 years, we two women, mother-in-law and me, are in want of food. The weavers do not call at the house for buying yarn. Not only this, if the yarn is sent to market, still it is not sold even at one-fourth the old prices. I did not know how it happened. I asked many about it. They say that *Bilati* (English) yarn is being largely imported. The weavers buy that yarn and weave. I had a sense of pride that *Bilati* yarn could not be equal to my yarn, but when I got *Bilati* yarn I saw that it was better than any yarn. I heard that its prices is Rs.3 or Rs.4 per seer. I beat my brow and said, Oh God, there are sisters more distressed than me. I know that all men of *Bilati* are rich but now I see that there are women there who are poorer than me. I fully realised the poverty which induced those women to spin. They have sent the product of so much toil out here because they could not sell it there. It would have been something if they were sold here at good prices. But it has brought our ruin only. Men cannot use the cloth out of this yarn even for two months. It rots away. I therefore

> entreat the spinners over there, that if they will consider this representation, they will be able to judge whether it is fair to send yarn here or not.
>
> A representation from a suffering spinner.
> Shantipur *Samachar Darpan*.

The above was reproduced by Gandhiji in *Young India* in 1931. It is possible that the women of Lancashire felt somewhat similarly after the post-1929 world-wide economic depression, and the boycott of foreign textiles by Indians as a result of the Indian noncooperation movement. But it is perhaps correct to assume that when Gandhiji visited Lancashire in the latter part of 1931, and met many of the Lancashire women, he was able to make them see that Lancashire had made the condition of Indian women even much worse for more than a century.

As a corollary to the massive emaciation of the majority of Indians, the rest in India, who could somehow overstep the emaciating process, became socially separated from the majority of their fellow beings. As their own condition was based on fragile foundations it made them behave callously all the more—and, at times brutally—towards this emaciated majority.

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Even from amongst this remainder, who in material terms were relatively secure, even privileged, a very small section —perhaps only a quarter percent of the Indian population—became, in time, alienated from their own civilisation, and felt proud to be living like foreigners in the innumerable civil lines, military stations, and the post-1947 enclaves of India's metropolises, and of India's other major cities.

Their life style became western, with some of them grotesquely so, and with others in a less ostentatious manner. As early as the 1830s, the British Viceroy Bentinck was very pleased with such a development and was happy that the prosperous Hindu families of Bengal were giving up feeding Brahmans, or contributing to temples, and had taken to the ostentatious entertainment of Europeans instead.

A ridiculous fallout of such alienation can be seen practically in every district headquarters, more so in northern India. Here the governmental officer-core of about 200–400 persons, and their families lead lives, which have little to do with the community they are supposed to serve. Their children live away from them in convent and college hostels, if the place of their postings has no convents, etc., and as most such districts cannot afford cultural appurtenances of modern life (good libraries, theatres, sangeet bhavans, art galleries, softly-lighted restaurants, etc.); and they have no way of mixing with the local people, or find it tedious and uncomfortable to do so. Their life is indeed nearly barren. It is possible that it is they who uphold the might, power and grandeur of the state in their areas. The state that they uphold, however—except that it may be taken to represent some abstract ideas or fills the generality of the citizens with a sense of fear—even after freedom has not been able to acquire any deeper meaning. It may be said in defence of this officer elite, that the manner of their lives, the uncomfortable and mostly ugly designs of the residences they are housed in, the amount of legitimate or even illegitimate money they are able to make, does not, in any major sense, qualify them (except perhaps just a few who occupy positions of relative decision-making) as objects of envy. It is rather that most of them seem harassed, even pathetic, and would be objects of pity in a society which was not so deprived and disorganised as ours.

Yet another consequence of British rule has been, that practically no one engaged in the service of the state or its dependent institutions, comprehends in any real sense, what he or she is engaged in, even as regards the job which has been assigned to the particular person. Further, the way the job is done has no possible linkages with the general and social life of the community, or its priorities, or even with one’s family life. The life of such people has got split in two unrelated compartments; instead of one enriching the other, what gets created at best is a general bewilderment. The general assumption that the huge army of those who are in the service of the state are having tremendously entertaining or luxurious lives, or most of them at least enjoy the exercise of power which they are supposed to command, is mostly a fallacy, unless one treats occasional instances of individual sadism as entertainment.

This of course does not apply to some 10,000–20,000 persons who, in various capacities, decide major policies, or supervise or manage various departments and corporations of the state. Their life, indeed, is of material ease, of social graces, and will compare well with the life style of persons of similar positions in the more prosperous lands. To them may be added another 50,000–1,00,000 families of proprietors and managers of industry, those running mercantile and trading concerns, some of those who have become prosperous through commercial agriculture, dairying and horticulture, and of course the more successful of the lawyers, medical doctors, academics and journalists.

While basically there never has been any animosity between society and polity in the Indian tradition and history, the present Indian polity, built as it is on alien concepts and theories, has been reduced to the state of a huge dying dinosaur or, more or less, continues to be the monster which the British had put together some 150–200 years before.

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It is conceivable that in the circumstances of today we cannot have recourse to the socio-political institutions and structures of pre-British India; that in our rather spiritually and physically emaciated state, we would be even less capable of creating the sort of society and polity which most of our people had in view in Gandhiji's time. Living in the world as it is today and in a sense having been forced to feel during the last 3–4 decades as if we lived on the world's sufferance, it is obvious that till we created a new conceptual frame for the functioning of our society and polity, and such a frame has a brilliance of some kind for the rest of the world, we have to adjust ourselves to present circumstances. One form of adjustment is the one which we have been pursuing since 1947: more or less walking in the grooves laid down by the west, while dreaming day-dreams that our time will come one day. Another version of the effort at adjustment, though presented more confidently and forcefully, is of bridging the so-called 300 years' gap which is said to separate us from the world of the west, and to aim to catch up with the west by the beginning of the year A.D. 2001: achieving a position that would enable us to compete with others in the world in the way those who have not been left behind by history do.

Put in this latter phraseology, it is rather an attractive objective, specially for many of us who have had adequate education and training in the ways of western science and technology, or to some extent in the working of its organisational structures. Looked at deeply, however, such an objective is seldom achieved. In history, as in life, one does not catch up with anything. Those who are given to striving go their own way, and the very fact that they move according to their volition eliminates the question of the need of their catching up with any one else. But in a situation where one has to face a powerful adversary or adversaries—whether they are so termed or not—and in our particular case the whole of western civilisation is such an adversary, what one has to do is to aim at getting several paces ahead of it; and not merely aim at catching up or bridging some particular historical gap. In our own time, Gandhiji just did that, for at least 20–25 years, on the basis of what he could structure in the way of institutional forms, battle techniques, alternative modes of socio-economic life, etc., out of the indigenous constituents available to him, and by the genius of his great generalship. And as we know, what he created kept British power mostly on the defensive for over two decades. It is possible that what Gandhiji did is no longer repeatable—at least not in any literal sense; or even if it were, it might not be able to help us in the present situation.

Yet the sooner we get out of the present stagnation, and the state of hopelessness (both in our society and, even more so, in the manner in which our state functions), the better for the people of India and their state. In spite of the great freedom struggle, and four decades of political freedom, the Indian state has yet to wake up to the fact that it is not a colonial state; that it is not ruling a hostile people; that it in fact is amongst its own kith and kin; and that only to the extent these kith and kin feel a kinship with it, will it have legitimacy, as well as, inner confidence and strength. To say this is not to condemn what has gone on in the past four decades. In a way what happened was on the cards, it was an obvious result of our two centuries old subjection and alienation, and the diffidence we still had, till recently, in our relations with the world, or in our own capacities.

Our problems indeed are manifold. The problem of a rather excessive population growth without the means of an outlet, like the one Europe has had during the past 400–500 years, or Islam had before that, is only one of them and, perhaps, not the most intractable or urgent. Our major problem is to establish an organic linkage between our society and polity, both of which urgently require to be put on sounder and more indigenous foundations. To move in such a direction, we have to re-examine, not only our past and its concepts, institutions and manner of solving issues, but also various solutions which have occurred to our people during the past century, or so.

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The recent resolve to pay attention to our national heritage, of which the programme of the cleaning of the Ganga is one result, should indeed be welcome and receive nation-wide support. But a neglect of at least two centuries cannot be corrected by small gestures, or symbolic programmes. The restoration of our heritage requires at least as much attention and perhaps as many resources as we devote to our defence system; and more importantly, an organisational framework with much greater agility and local initiative. It is possible, that an awareness of our unbroken ancient heritage, its restoration, preservation and interpretation, and the self-knowledge which it will impart to our society, is of even more primary importance to the security and defence of India than any national military system, important though the latter is in the present day.

Similarly, the resolve of bringing 50,00,000 hectares of waste land annually under fuelwood plantation for the next ten years, if handled rightly, and if it leads to the planning of fuelwood trees (instead of trees of more commercial and industrial utility, as seem to have been the fashion in recent years), would be of great practical value to our ordinary rural and small-town populace, and may help initiate many other local activities.

Though at present aimed at a different and much smaller section of society, a welcome can perhaps also be given to the proposal of starting institutions of excellence (in the fields of education, health, culture, etc.) in each district of India. But the very idea of initiating such programmes or institutions requires that the whole machinery of the state soon undergoes a well thought out re-organisation, and the army of 10,000–20,000 of state employees in each district is placed at the disposal of responsible district bodies. Further, before such institutions of excellence can be of any national value, the service which they will impart, or the content of what they will teach or present has to have proper scrutiny. They have to be Indianised in every sense; and those who run them, and those whom they produce have to regain a sense of patriotism as well as a sense of compassion. As we know too well, patriotism as well as compassion are fast becoming scarce commodities in today's India.

Additionally those engaged in the administration or development of an area have to have local roots and loyalties. They have to realise, and appreciate, that they must be answerable to the people they serve, if anything really worthwhile is to come out of the new resolves and programmes.

This obviously would imply, that an end is put to the unnecessary moving around of official and other personnel from place to place. Simply because the British needed to continually move their armies over long distances to indicate their invincibility, and similarly move their top civil officers, because either such officers became too unpopular or they got too mixed up in local affairs and so became less useful instruments of British authority, does not imply that we have to keep on with this senseless and wasteful practice. A medical doctor, an engineer or a teacher, and even a policeman, will certainly be much more useful to society and to those persons and purposes, whom he was supposed to serve, if he stayed in one place over long periods, and conversely of much less use or value if he was moved from place to place as frequently as happens today. The assumption that he will become corrupt, exploitative, inefficient, etc., unless he was so moved around, is one of the major fallacies of the administrative system, which we inherited at the time of the 'Transfer of Power' in 1947.

If the above steps were to be taken, and similar measures were adopted in the political and other spheres, it would also obviate the need of the vast real-estate, the construction and maintenance of which seem to have become the major function of the Indian state at all levels, and more so at the national. That as foreigners the British had to build houses, dak bungalows, etc., for the use of British military and civil officers, and their immediate servitors and dependents, however wasteful of Indian state resources, can be understood in the context of the British conquest of India. The fact however, that this real-estate has multiplied 10–20 times of its pre-1947 size, can only be explained either as the result of total thoughtlessness on the part of those who have governed India since the British left, or because of the wholly mechanical working of their mind. India seems to be the only country, at least in the British commonwealth, where even members of legislatures are provided permanent residences in the capital city. It is small wonder, that within a year or two of their being elected, most of them become part of the capital, and have little links left with those who sent them to these legislatures. Given such an alien frame and practices, it is not surprising that the main function of the Indian state, as it has been operating till now, is to look after its decision makers and the vast army of those who are expected to implement the decisions. The framework was created mainly to keep the populace in, what the British called, a state of tranquility, that is, the activities of the people were kept at a minimum so as not to disturb the state's tranquility. Given this frame the decision-makers, as well as their subordinates, obviously give first priority to their own security, comfort, etc. The decisions, therefore, are mostly of the kind which maintain tranquility; and provide security and differently graded comfort to those who surround the state; and try to keep it safe from the people whom it is supposed to represent. The result, more or less, is that instead of the state existing for the people, it is the people who are seemingly permitted to exist for the convenience of the state.

A step which can be taken fairly soon without waiting for the complete re-casting of the polity (a long-drawn process in any case), is to shed the unnecessary load which the state, more so the central state, has accumulated over the years. Many of the functions which the central state performs today can safely, and also more effectively, be performed at more local levels. The imbalance in terms of power and resources, which has become increasingly manifest between the government at the national level and the governments in the states, as also between the latter and more locally-based elected institutions, needs urgent correction. To the extent the national level reduces its load, and distributes a substantial portion of the resources at its disposal, the stronger and efficient it will become in performing such tasks which can be performed by it alone. Over the years, it has accumulated too much fat and flabbiness. The job is for it to become slim and agile. Load-shedding alone can make it functional in the internal as well as in the external sphere.

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To achieve better functioning, it may be necessary for India to opt for different and even contrary options in different spheres and for different tasks. While it is essential, indeed imperative to encourage and promote recourse to older institutional forms, linkages, technologies, etc., it may also be essential for India to master modern theories and their products (like institutional forms, technology, etc.), and as far as possible to innovate and improve upon them. While the latter may secure an equal place for India in the world at large, it is only the former which can make India's people and talents come into their own. Once this happens, it would be a far easier job for the indigenous talent and priorities to borrow what they wish from elsewhere, to internalise what suits them within their own frame, and thus eventually arrive at the point, where the contradictions of these diverse ways could be resolved without serious turmoil. When this has happened, whether it was the indigenous which governed Indian life, or it was the adopted and internalised which did so, would only be of academic value. What would have been achieved is, that the effort would have helped India to renovate itself, and so feel confident about its own strivings and goals.

In the context of a re-shaping (and relinking) of Indian society and polity, the exploration of the past can be of great practical value. Analysis and comprehension of data on our past can tell us how we acted in the past, and in what we succeeded and where we failed. Obviously only knowing about ourselves even in the minutest details, though it would lead to self-knowledge, may however not be enough for our future survival as a free and prosperous society and state. For that, we shall have to know much more about the world itself, and that not merely through the work and interpretations of others, but by that of our own. It is all to the good that scholars from the west, including the Soviet Union, or from Japan, or elsewhere are studying the old institutions and manners of India in great detail. Their studies can certainly give us some indications and starting points. But to be of any value to our society such and other studies will primarily have to be taken up by our own scholars and academics.(The research for these talks as already indicated in the text was begun in 1966. I am grateful to a large number of friends for the advice and support I have received in this endeavour from time to time. The detailed research—yet to be completed—on the circa 1770 Chengalpattu district village data, was begun during 1984–85. This latter research, and the putting of the varied data in the form of the foregoing text has been made possible by the offer of a visiting fellowship by the Gandhian Institute of Studies, Varanasi during 1984–85. I am thankful to the Institute for its interest and support in this work.)

II

INDIGENOUS INDIAN TECHNOLOGICAL TALENT AND THE NEED FOR ITS MOBILISATION

(Indigenous Indian Technological Talent and the Need for its Mobilisation *was delivered as a popular lecture at the Birla Industrial and Technological Museum, Calcutta on October 4, 1986. The text was also published in the* PPST Bulletin *from Chennai (No.9. Dec.1986, pp.5-20).*)

Since we regained freedom from foreign political dominance in 1947, India has made substantial headway in many spheres of economic and technological activity. Our agricultural production has more than doubled during this period. The increase in the industrial sphere is perhaps even more impressive. Today we are said today to have the third largest pool of scientific and technological man-power in the world. We can also well claim to have established a very large network of institutions which impart scientific and technological education and training. We have built up an extensive complex of scientific and technological laboratories devoted to industrial research as well as research in agriculture and fields allied to it. This, however, has to be qualified by the fact that we constitute about a fifth or sixth of mankind, and geographically we are as large as the whole of Europe taken together.

Despite this economic and technological headway, as a people we seem to be in rather a despondent mood. True, there are short moments of euphoria when we feel that we are on top of our problems; or that we are on our way to catching up with the powerful in the world. It was also a time of high hope when—around 1947—some of our leading industrialists—if I remember right—even said that we may replace Japan as a great industrial nation and take over its markets. But since about 1960, we seem to have begun to feel that we have somehow gone astray. Even in comparison to peoples and nations who have been geographically and historically close to us, like China and Korea, and perhaps even Malaysia and Indonesia, we have been left behind in matters of economic and technological growth. And taking another sphere of endeavour, if one is to judge by the results of the present Asiad, or of that held in Delhi in 1982, or our participation in the last Olympic games, our position there does not look too different to that in technology and industry.

It is well known, in fact often exaggerated and deplored, that a substantial proportion of the young scientists and technologists whom we train, especially those from the IIT's, etc., migrate to the USA, or other western industrialised countries. Most of them initially go to these countries for the purpose of advanced research, but only a small proportion of them so far ever return to work in India. It is said that most of these migrants make successful careers in the scientific and technological fields in the countries of their adoption; and that the work many of them do there is of fairly high competence. Yet, some of those who should know seem to be of the view that it is a rare individual from amongst them who is able to be scientifically or technologically creative, or be able to produce anything which may be termed new.[1]

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A great movement was initiated for the promotion in India of western science and technology nearly a century ago. The main centre of this movement was Calcutta itself. As far as my meagre knowledge goes those intimately associated with this movement, in its early phase, included such illustrious names as Mahendra Lal Sircar, Jagdish Chandra Bose, Prafulla Chandra Ray, Gooroodas Banerjee, Ashutosh Mukerjee, Taraknath Palit, C.V. Raman, and they were followed by J.C. Ghosh, Meghnad Saha, J.N. Mukerjee, S.N. Bose, and many others.[2] While reasons of patriotism, devotion to *swadeshi*, etc., played major roles in leading Mahendra Lal Sircar and others to the promotion of the new science and technology, men like Sir Richard Temple, the

British Governor of Bengal around this time, felt that the teaching of science in India would help in curbing the ambition and self-confidence of the educated Indian. Writing to the then British Viceroy Northbrook, Temple observed: 'No doubt the *alumni* of our schools and colleges do become as a class discontented. But this arises partly from our higher education being too much in the direction of law, public administration, and prose literature, where they may possibly imagine, however erroneously, that they may approach to competition with us. But we shall do more and more to direct their thoughts towards practical science, where they must inevitably feel their utter inferiority to us.'[3] Temple wrote this in 1875. In 1876 Mahendra Lal Sircar and his friends established the Indian Association for the Cultivation of Science at Calcutta.[4] In 1885 J.C. Bose was appointed junior professor of physics at Calcutta Presidency College,[5] while in 1889 Prafulla Chandra Ray was appointed as assistant professor in chemistry.[6]

While all of them, except men like Governor Temple, agreed about the need and value of modern science and technology to India, the early promoters of it differed considerably with regard to the methodology of its promotion. Mahendra Lal Sircar subscribed to the priority of science over technology[7] and in fact wished that the word 'applied science' had not been invented.[8] Prafulla Chandra Ray, however, thought that 'industry as a rule had preceded science' in the progress of western society.[9] Attracted as he was, along with Jagdish Chandra Bose, to the integration of cultural and economic nationalism, his early efforts were devoted to the promotion of industrial entrepreneurship wherever he could. He also 'began writing a number of primers in chemistry, botany, and geology'[10] towards the same end, while Gooroodas Banerjee 'suggested the use of the mother tongue'[11] in the teaching of science and technology. Curiously during his early days as he stated in his address to the Khadi Exhibition at Kakinada, in December 1923, Prafulla Chandra Ray believed in Liebig's dictum 'that the index of the civilisation of a country is the amount of soap it consumed and...that the industrial progress of a country was measured by the output of its sulphuric acid.'[12] It may be interesting to mention here that Europeans who knew southern India well around 1700 had great admiration for the quality of clothes-washing by the washermen in southern India, and felt much could be learnt in this respect from them by Europe. There possibly may be a link somewhere between such admiration for south Indian clothes-washing and Liebig's fascination with soap.

In his later period, however, Acharya P.C. Ray felt that the *charkha* represented 'an easy, healthy, natural process of increasing the wealth of the country and smooth way of universalising the incidence of wealth.'[13] Most of his students and younger colleagues, like Meghnad Saha, in one way or another agreed with Acharya Ray's earlier position rather than with his belief in *charkha.* They felt that what India required was heavy industrialisation and big science accompanied by state planning.[14]

The promotion of western science and technology was also widely considered during 1916–18 by the Indian Industrial Commission. Its Indian members were Madan Mohan Malaviya, Dorabji Tata, and Fuzulbhoy Currimbhoy Ebrahim.[15] The Commission examined a very large number of witnesses whose evidence fills five volumes of the Commission's seven volume report.[16] In his minute of dissent to the Report and in his cross-examination of witnesses, Pandit Malaviya questioned the view that it was the West that had provided the great traditions of technology. 'Such a statement,' he remarked, 'denied the long history of Indian achievements in ship-building, smelting, weaving, etc.'[17] According to him, 'the de-industrialisation of India and the history of the industrial revolution in the West were integral parts of one process, that colonialism preceded and helped create industrialism in Britain.'[18] Pandit Malaviya also suggested that it was education which promoted intelligence and thus technology. He dismissed the view, then popular amongst the British in India, that intelligence was related to race and heredity.[19] Many who gave evidence before the Commission, as also Pandit Malaviya, felt that the better model for Indian scientific and technological development was provided by Germany and Japan rather than by Great Britain.[20] One witness, B.N. Basu felt that the scientific and technological backwardness of India was in part a result of English scholasticism which dominated British-directed Indian education. According to him, 'where practical men are wanted we have been given a race of pandits with this difference, that instead of studying the ancient literature of their own country, which might be of some use, they have learnt with considerable assiduity numerous parts like the conjugation and declension of Anglo-Saxon verbs.'[21]

The secretary of the Visvakarma Mahajan Conference Committee, probably from Andhra and quite possibly the only representative of the artisans in India who appeared before the Commission, stated that the artisans who were 'the industrial backbone of the country, were not going to be the beneficiaries of the new policy regarding (the proposed) technical schools.' He pointed out to 'the complete dissociation of the intellectual class in the country from its industries' and felt that 'the selection of students to go to foreign countries for training, from communities other than industrial or artisan classes who possess the initial aptitude for manual labour, which a university graduate of any other class despised as a derogation of his caste dignity or literary merit'[22] had done irreparable harm. An English witness did refer to the beneficial role which caste could have played in technological development and industrialisation. He wondered whether caste groups could serve as functional equivalents to trade unions, and felt that an opportunity had been lost. According to him: 'Had caste been adopted as an educational unit in the first instance the result might have been different. It is in many ways a valuable social organisation of which use might have been made.' His English upbringing, however, re-asserted itself, and he said that caste was un-British and unnatural. He observed that 'there never was a possibility of a constructive attitude towards it.'[23]

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Patriotic pride, the urge for the integration of economic and cultural life and the memory of ancient industrial grandeur notwithstanding, it seems that by the end of the 19th century little trace had been left in Indian intellectual and scholarly consciousness of the sciences and technologies which had been fairly successfully practised in India till about the end of the 18th century. It is possible that even at this earlier period, i.e. the latter part of the 18th century, the scholarly Indian elite of the time was not consciously aware (though they benefited from their products and the specific knowledge and information they provided) of their existence. They probably took them as part of their landscape, as some amongst tens of thousands of the constituents of the structure of the society which supported their elite life; only to be noticed, if at all, when absent.

Whether the late 18th century Indian elite was consciously aware of the then existing sciences and technologies of India or not, these were taken serious note of by European specialists during the 16th, 17th and 18th centuries, as and when they were looking for knowledge, information, design, technique, etc., in any particular fields. Examples of such European research, attention, study and borrowing are innumerable. The collection of Indian botanical texts by the Portuguese and the Dutch goes back to the early 16th century. The *Hortus Malabaricus*, in 12 volumes, with illustrations of 750 species of Indian plants was published in Europe during 1678–93. It is said to contain certificates from four Kerala and Konkan Pandits about the authenticity of the information in the 12 volumes.[24] The design and function of Indian agricultural implements, especially the drill plough was as important to late 18th century British agriculture, as was the Indian practice of inoculation against smallpox and its rationale, or as the method and rationale of the artificial manufacture of ice in the Allahabad-Varanasi region had been a few decades earlier. Similar, or perhaps even greater attention was devoted to an understanding of Indian building materials and techniques, to various chemicals used in Indian industry and other processes and their sources, in Indian steel and its technology, in the prevailing Indian surgery,[25] and even in the method of teaching in schools in India especially in those in the south.[26] The existence of petroleum wells and the use to which the oil was put to was first observed in Burma around 1797. The number of wells, in the area visited, was said to be 520, and their annual oil production about one lakh tons valued at over ten lakh Indian rupees. The oil was used for lighting lamps, for the painting of timber and the bottoms of ships and boats, and also used medicinally as a lotion in cutaneous eruptions, as an embrocation in bruises, and in rheumatic afflictions.[27]

A curious example of the transfer of technology from Pune to London in the 1790s is provided by the Indian practice of plastic surgery. It is perhaps best that I describe it in the words of a founder of modern British plastic surgery, J.C. Carpue, FRS. Carpue wrote in 1816:

> It was in this manner that the nasal operation had become forgotten or despised, in at least the west of Europe; when, at the close of the last century, it was once more heard of in England, from a quarter whence mankind will yet, perhaps, derive many lights, as well in science, as in learning and in arts. A periodical publication, for the year 1794, contains the following communication from a correspondent in India, which is accompanied by a portrait of the person mentioned, explanatory of the operation. 'Cowasjee, a Mahratta, of the caste of husbandman, was a bullock-driver with the English army, in the war of 1792, and was made a prisoner by Tippoo, who cut off his nose, and one of his hands. In this state, he joined the Bombay army near

> Seringapatam, and is now a pensioner of the Honourable East India Company. For above twelve months, he was wholly without a nose; when he had a new one put on, by a Mahratta surgeon, a Kumar, near Pune. This operation is not uncommon in India, and has been practised from time immemorial. Two of the medical gentlemen, Mr Thomas Cruse and Mr James Findlay, of Bombay, have seen it performed as follows: A thin plate of wax is fitted to the stump of the nose, so as to make a nose of good appearance; it is then flattened, and laid on the forehead. A line is drawn round the wax, which is then of no further use; and the operator then dissects off as much skin as it covered, leaving undivided a small slip between the eyes. This slip preserves the circulation, till an union has taken place between the new and old parts. The cicatrix of the stump of the nose, is next pared off; and, immediately behind this raw part, an incision is made through the skin, which passes round both alae, and goes along the upper lip. The skin is now brought down from the forehead; and, being twisted half round, its edge is inserted into this incision; so that a nose is formed with a double hold, above, and with its alae and septum below, fixed in the incision. A little Terra Japonica is softened with water, and, being spread on slips of cloth, five or six of these are placed over each other, to secure the joining. No other dressing than this cement is used for four days; it is then removed, and cloths, dipped in *ghee* (a kind of butter), are applied. The connecting slip of skin is divided about the twenty-fifth day; when a little more dissecting is necessary to improve the appearance of the new nose. For five or six days after the operation, the patient is made to lie on his back; and, on the tenth day, bits of soft cloth are put into the nostrils, to keep them sufficiently open. This operation is always successful. The artificial nose is secure, and looks nearly as well as the natural one; nor is the scar on the forehead very observable, after a length of time.'[28]

On the basis of the above and other information J.C. Carpue started his own experiments. But before starting them he made more enquiries. About these enquiries he wrote:

On undertaking the first of the two cases to be hereafter narrated, I was induced to make such personal inquiries as were within my reach in this country, concerning the Indian method. I did myself the honour to write to Sir Charles Mallet, who had resided many years in India, and who obligingly confirmed to me the report, that this had been a common operation in India, from time immemorial; adding, that it had always been performed by the caste of potters or brick-makers, and that though not invariably, it was usually successful.

Mr James Stuart Hall, a gentleman who was many years in India, assured me, that he had seen the operation performed, and that it was of tedious length. From Dr Barry, of the India service, I learned, that he had also seen the operation; that it occupied an hour and a half, and was performed with an old razor, the edge of which, being continually blunted in dissection, was every moment re-set. *Tow* was introduced to support the nose, but no attempt to form nostrils, by adding a septum, was made.

I am obligingly informed by Major Heitland, of the India service, that in India, several years ago, in the time of Hyder Ali, Mr Lucas, an English surgeon, was, in several instances, successful in the operation, which he copied from the Hindoo practitioners.[29]

Summing up this information, J.C. Carpue observed:

It will be observed, that the whole of the foregoing accounts are agreed upon these points, that the performance of the operation is confined to a particular caste of Hindoos, and that this caste is said to be the Koomas, or potters, or brick-makers. The combination appear, at first sight, to be singular; but an explanation is not difficult, and may not be unacceptable. Most of the Hindoo castes, though fixed within positive limits, as to professions, trades, or other occupations, are yet allowed a certain range, a certain variety of pursuit, among which the individual is free to make his choice. The castes are known to be divided into sub-castes; and there are degraded castes, making branches of the pure castes, with respect to whom a still greater laxity is allowed: 'The profession of *astrology*, and the task of making almanacs,' says a later writer on India, 'belong to *degraded Brahmins*; and the occupation of teaching military

> exercises, and *physic*, as well as the trade of *potters*, weavers, brasiers, fishermen, and workers in shells, belong also to the descendants (meaning the outcastes) of Brahmins.' Thus, astrology, medicine, and *pottery* are among the several pursuits allowed to one and the same caste.
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> That *astrology* and *medicine* should be thrown into the same lot, excites no surprise...It is hence that our ancient almanacs contained instructions concerning the health of the body; and, at this day, 'Francis Moore', though he calls himself 'Physician' is plainly an astrologer. The adjuncts of pottery, weaving, etc., in the same caste with the former, appear to evince, that the Indian institutions are less restrictive on the particular genius or disposition of individuals, than may have been commonly supposed.[30]

J.C. Carpue then goes into a discussion of the origin of plastic surgery, its knowledge in ancient times in Asia as also in ancient Greece, the difference between the later Italian and Indian method. He adds:

> We have now seen that the nasal operation, and all the physiological *facts* upon which it depends, were known in Europe at least as early as the date of the Christian era; that the *fact* of adhesion was known to Hippocrates, and that where our history fails us, is simply the point beyond which we have no records. We have now, also, before us, the greater part, if not the whole of the information which was possessed by Taliacotius; and, beside satisfying ourselves that this eminent person was not (what he never pretended to be) the inventor of the art, we may venture to judge in what degree he advanced it.
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> That the art has subsisted from the most ancient period in India, and other southern parts of Asia, and was at no time carried thither from Europe, is probable from further evidence than the simplicity of the Indian method, as compared with the Italian; the ordinary recourse which is had to it in India; its practice by a particular caste, and its junction with religious observances: it is probable, likewise, from the frequent occasions for it, from the favourableness of the climate, from the temperance of the people, and from the plainness of the road by which Nature leads to the invention. The adhesion of divided parts, however, little understood, till lately, in France or England, was one of the

> first spectacles presented to mankind. If we fancy that we are entitled to refuse to the Orientals the reputation of science, this makes no alteration in the case; for no depth of science, but involuntary observation, was all that was wanted here.[31]

As we now well know such an operation is described in detail in Susruta. Though perhaps less dramatically put, the narratives about the Indian method of inoculation, on the manufacture of ice, on Indian agricultural implements, regarding the technical details and economics of the manufacture of Indian steel, on Indian chemicals and dyes more or less follow a similar strain. The narratives seem to have been responses to urgent and contemporary British or European need; and it may be assumed that India was one amongst several places where such enquiries were conducted. The manner the narratives were analysed, discussed, published for specialists and scholars seem to suggest that what was relevant in them to contemporary British or European requirement was incorporated in the corresponding practice of the borrower, in time internalised and thereafter, perhaps within a period of fifty years, the origin of the incorporated, at least in practice, quite forgotten.

The above does not necessarily imply that post-1800 British and European technology owes a great deal to the information and knowledge which it received from India. From about the 13th century, there was much flow of ideas, knowledge, and technologies to Europe particularly from Asia. All this took time to be absorbed and internalised. By stages, Europe seems to have been able to integrate or graft what it felt important on to its own technological frame, and its stock of knowledge. By about 1820, or 1830 Europe had far surpassed in matters which interested it, all those who had contributed to its scientific and technological growth; and had, therefore, no need to remember details of the sources from which the borrowings had been made.

However the erosion and decline of Indian industry and technology in the late 18th and the first half of the 19th centuries had, as is well recognised today, little to do with factors relating to Indian technological practices and their economic efficiency. In these respects, many of them could have withstood foreign competition (as Indian cotton textiles did for many decades till about 1850). The decline and destruction was politically and fiscally induced by deliberate British policy. The way this decline happened in the Indian textile industry is well mapped out amongst others by Dr Jitendra Gopal Borpujari in his recent study.[32]

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For some 70–80 years, and more so since 1947, efforts have been made to industrialise India on the western pattern. There has been much debate on how to go about such industrialisation: whether industrialisation, at least initially, grows out of earlier technologies of an area and only later gets linked up with high science; or whether it is high science, which really converts so-called 'primitive' forms of technology into modern industrialisation. We seem to have played around with such ideas and their various permutations and combinations; but the major result so far seems to be that we find it faster and cheaper rather to buy technology from the international market than to invent or innovate it ourselves. It is true we have produced quite a number of industrial items in the past three decades on our own. But if we could, quite some of us may perhaps prefer to replace even most of these by their international equivalents. One of the explanations for such a possible preference may arise from the fact that most of what we have produced in the past 30–40 years is not any new basic technology, but largely adaptations of what prevails elsewhere. Even much more, we seem to be taken up merely with the production of parts for the technology and machines received by us from the modern industrial countries. Such a course is bound to effectively exclude us from any improvisations of our own, even when these occurred to us.

Simultaneous to this industrial development, our people at large have also continued, though less and less as years pass, with some of their age-old but rather worn-out and rusted indigenous technology. The indigenous manufacture of iron and steel has of course gone completely overboard, as also the artificial manufacture of ice by the method used in Allahabad two centuries ago and about which the Royal Society of Great Britain was then so serious as to seek a scientific explanation. Even the making of most agricultural implements is on a decline at the village level; so also is the manufacture of looms, of *charkhas* (of which Mahatma Gandhi got produced twenty lakhs between April-June 1921), of dyes and chemicals, of oil-pressing by the bullocks-driven *ghani*, of the making of compost manure for agriculture, and even of ploughing by bullocks. Products of modern industry are fast taking the place of the village and small town product. Those who cannot afford even the cheaper though grosser modern industrial product—the much mourned 50% of India's population who are said to be below the widely debated poverty line—have slowly learnt to do without even the little that was thought necessary before. Local building materials are fast disappearing—unless of course some of them are being used in great modern palaces, to give them a touch of Indian authenticity. Yet, while there is a certain glitter in the metropolises, it seems that what we are saddled with today in the way of science, technology and industry though it helps us somehow survive at a very low level, does not lead us anywhere as a people. Even our elite are not too pleased with the situation, and given a reasonable chance, a high proportion of them would migrate to industrially prosperous and functioning areas. One cannot really blame them. At least they show some initiative, though of the wrong kind. At any rate, credit, perhaps, can be given to them that they do not seem to wish to be forever directly riding on the backs of their own people.

We have to start afresh. Not that we immediately give up modern science, technology and industry altogether. We keep what seems to us basically necessary for our security and survival in the present world; and which, after careful deliberation, seems to us, at least for the next decade or two, crucial as basic material, etc., in the creation of the groundwork of an indigenous network of industrial production. We also don't have to give up all products of high-science, or of high-technology. For example, if we were properly ambitious we would work out a plan of providing power from the energy from the sun (in the form of electricity, steam, etc., and not just solar-cookers!) to every habitation in India, say within a generation. And till this goal is reached, all the fuel-gas we have from our various gas deposits, supplemented by what little we can get from the much celebrated gobar-gas plants, should be supplied to the ordinary rural and small town family, at least in the areas where such gas can be reached, for their daily fuel needs. Such a step may also produce a certain acquaintance between modern technology and its gadgetry and the ordinary people of India—just as the bicycle has done. The way the wasteland development programme which planned to create 50,00,000 hectares of fuel wood plantations every year and which was announced with such fanfare has gone haywire, and the leisurely way the departments and agencies of nonconventional sources of energy work is confirmation enough that most citizens of India will be starved of even domestic fuel unless the fuel that is available today goes directly, for fuel purposes, to the ordinary people irrespective of the consequences of such policy on the rest of the Indian economy and industry.

On the face of it such suggestions may seem rather wild. But it seems that only any serious disruption, or real threat of it which seem to disrupt our own lives and much more our equanimity will, under the circumstances, take us out of our sloth, our *tamas*, and force us to take steps which will also clear the way for our bright and accomplished young scientists and technologists, and lead at least some of them to the much awaited creativity and inventions and innovations relevant to our society.

Though it is only a small beginning, the work of the Bangalore scientists like Prof Vasudev Murty, in inventing a process for the indigenous manufacture of hyper-pure silicon, used in making solar cells as also electronic devices, is greatly to be welcomed. It is more than probable that many more scientists and technologists, despite the general despondency, and quite unknown to others, are similarly exercised in the various other problems of science and technology. If they succeed, what they achieve could be equally path-breaking.

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Our essential task is to bring the innovative and technological skills of our people, those who professed them for millennias and till at least 1800, back to the rebuilding of our primary economy and our industry. We have ignored this so far. Instead, we have tried to create a new economy and industry to which the primary economy has been subordinated. There would be little serious complaint, at least in the short run, if this latter effort had succeeded and created some ferment at the primary levels; or at least seemed to be moving towards success. But the whole effort is bogged down; and even the initiators of it appear to have given up hope. That they now talk of a new electronic revolution, which could deliver prosperity in the 21st century is more or less on the same level as passionate arguments about world peace, ecology, the bio-sphere, the environment, etc. One of the causes of our failure may be that we attempted the creation of new economy and industry largely on poor uncomprehending imitation, and with the help of talent which was drawn from no more than two percent of our people. In retrospect, at least, the observation of the representative of the Visvakarma Community before the Industrial Commission 1916-18, that keeping the technically competent artisan classes out of the new scientific and technological education has done great harm,[33] seems to have come true.

During the past several years, much work has been done by some of our historians on the role of the subaltern classes in Indian society. So far such studies have been concerned largely with the post-1850 period: when, according to some of great stress for the subaltern classes or according to others of much future hope, depending from which ideological stand one viewed it. It should be most valuable for our understanding of India if the subaltern were also to be studied in the period just before British rule, or just at its beginning. Such studies may also throw much more light on the daily life of the subaltern, his productions, technologies and his crafts, and the manner in which these were organised and interlinked about 200 years ago.

The much celebrated simplicity of Indian technology has led us greatly astray. Simplicity was equated with crudeness, as was done for instance by James Mill. The alleged simplicity was also made into a great abstraction during the freedom battle. We were taught all this in the 19th century and its aftermath, when most of our British masters would have prized ugly and heavy Victorian furniture and treated delicate-seeming British Georgian furniture as at least not very utilitarian. Having accepted such judgements, we did not think of examining the reality which would have told us that the seeming simplicity of Indian technology or theory was a result of high degree of sophistication and exact measurements. The design of the Indian steel furnace (which was in extensive use till about the early 19th century), is a fair representation of this sophistication.

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As an example, I think, we should do whatever we can in the way of resource allocation, supporting structures and laws, subsidies at necessary points, and market support, to bring back to life the old Indian method of smelting iron ore and the manufacture of iron and steel. Such an attempt, however, need not interfere with the great steel plants. Around 1800, a movable furnace of that time could on an average produce about 20 tonnes of fine-grade steel, if worked for some 35–40 weeks in the year.

I had roughly estimated on the basis of available data for various areas that the number of such furnaces around 1800 might have been approximately 10,000. It is quite possible that the number was far larger but that most of them only worked for 10-20 weeks in the year. It is probable that in today's circumstances, these furnaces may be found highly wasteful of both ore and fuel; and to start with, the steel that they will produce may be of relatively poor quality. To some an attempt of this kind may seem a great waste. But to the same people, a loss of a few hundred crores here and there because of hasty decisions, or defective technology, etc., may look like the ordinary hazards of modern economy and industry; while a loss of 10 to 20 or 50 crores on a project of this type seems unpardonable.

How do we enable our ordinary people, and especially those who have some familiarity and instinctive understanding of the industrial and production process, to contribute whatever they can to the national effort? It cannot at all be done by making them into mere labourers where only their muscular power can make any contribution. Admitting a sufficient number of them to institutions like the IITs if such institutions and their courses are so altered that these institutions don't overwhelm them and scope is provided for interchange between men of mere theory and others who judge a technical situation through their experience and instinct, can be another way of making their talents and innovative capacities contribute to a regeneration of Indian technology and industry.

By restoring the old smelting furnaces (say in about a hundred selected localities where good raw material is readily available and where there is still some memory of the old method in those who used to be engaged in it decades ago or had observed it working when young), we quite possibly will help the old technical and innovative skills to come alive. Any superior guidance, etc., by modern experts, or administrative busybodies—till it was actually sought as man to man—will have to be strictly avoided in such an attempt. It is possible that success may not be achieved in every instance, but only in a half or quarter of them. Even such partial success, however, would provide us a starting point: where the successful smelter will be able to look the qualified metallurgist straight in the face and the two can then have a useful technical interchange. The old smelting furnace ultimately may have to be discarded in its old form, or modified in many ways in today's circumstances. But its re-creation in hundreds of localities and the taking of it through the production process would have taught a variety of lessons not only to our high-science and high-tech men but also to those who had for generations been engaged in this particular technology. It should also restore the confidence of the smelters, as also their sense of dignity; but even more make them examine the process anew in today's situation. That smelting furnaces like these were tried in China in the 1950s is well-known. Why they were initiated, what happened to them afterwards, and what lessons were drawn from their reworking is not known however. Even if our attempt turns out to be on similar lines as that of China, it need cause no mental disturbance. Every civilisation has to do its own learning and in its own way. The knowledge of what others did can only serve as one pointer amongst many.

Similar understanding can be initiated in many other long neglected technologies and industries. It should not be surprising if at least some of them (with minor modifications here and there) prove to be as productive and cost-efficient as the new technologies which we have borrowed from modern world industry.

Another path of understanding the process of innovation and invention involves the diligent and detailed investigation of the past of particular older western technologies and industries. Such a task can of course only be undertaken by highly qualified and research minded Indian scientists and technologists who are fairly familiar with the west as well as the older technologies of India. How bits and pieces and ideas from a variety of cultural backgrounds got joined together over a long period to form the particular modern technology, or what this technology was around 1900 when another major break might have occurred into it, can then be understood. It may tell us much about the nature of the innovative process and about the sort of mind and conditions that foster it.

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Lastly, the National Council of Science Museums, and the Indian state which will ultimately have to finance any such nation-wide plan, should consider the early setting up of technological museums: if not in every taluk, at least in every district of India. While such museums will also display products of modern western science and technology, their main display should be of indigenous artifacts from the respective area, or the region surrounding it. If original objects were somehow unavailable for particular technologies, these could be represented through models, pictures, sketches, plans, etc. Each museum, to the extent possible, should also have a library. This should include literature on the older practices of the area, and of course be provided with literature and equipped with demonstration facilities regarding how the new could be integrated, wherever that could be done, with older practices, and with the local environment. The museum will of course require a well-oriented young scientist and technologist, who has both abundant interest and patience to explain to those who visit it from within the region, the relevance of the museum and its display. Even if such museums do not greatly help in the regeneration of science and technology directly, they could in time act as a sort of ferment and evoke questions in younger minds on the subject of science and technology. They would also serve as places where the artifacts of India's heritage, pertaining to the given locality could be viewed and appreciated by the people of the area. If no one else, at least students from schools and colleges of the area would be the beneficiaries of such museums.

It should not be necessary, at least initially, in a large number of places, to construct new buildings for such museums. Taking the whole country, there are quite possibly around 10,000 buildings for immediate use: inspection houses, rest houses, circuit houses, etc., not counting similar places built by newer state and semi-state enterprises or academic institutions, and these are largely a part of the Indian 'heritage' from the days of the British *raj*. As ordinary people have little access to them, the occupancy rate of at least 90% of them would be no more than 5%–10% in any one year. Most such bungalows, etc., have to be sooner or later used for more pressing public purposes or sold over to the people at large for purposes of residence, or work, or to run as hotels, etc. A beginning in this direction can be made by using some of the more suitable amongst them to house such museums of Indian artifacts.

Other buildings which could be used to house museums, art centres, research institutes, etc., are old historical monuments, including some of our large and gracious temples (like the Vaishnav temple at Mannargudi in Thanjavur district), which because of a multiplicity of causes are rarely visited by pilgrims and other visitors. These are still however more or less as good as new. They have plenty of well and aesthetically designed space and should be rather appropriate as repositories of our artifacts and other symbols of our heritage.

Apart from using state-owned bungalows, etc., and the ancient monuments and temples as museums or centres of our art and heritage, the matter of a proper maintenance and utilisation of these places should be a question of serious national and local concern. Till all available local structures, meant for public purposes, have been put to constant and locally appropriate use, there should be a total halt to the construction of buildings at public expense all over the country.

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There must be a large number of possibly worthier ways, besides those suggested above, to help regenerate our technology and industry; those that arise from our roots or can soon strike root, and thus become innovative and socially relevant. In successfully doing so, we will not in any way be isolating ourselves from the world at large; but rather be readying ourselves to participate more fully and constructively in the life of the world.

Having observed earlier that our young scientists and technologists who go abroad are said by some to be 'just competent', I must add that competence is not to be shunned, ridiculed or put down. It is in fact a very valuable quality in a well functioning situation. Competence, however, has necessarily to be related to its subject, and the subject has to correspond to what is being sought. Our institutions, theories, methodologies, technologies, etc., are today unable to deliver what is sought, in practically every sphere. They even seem to hinder in many cases any such delivery. On the whole, we do not lack competent men and women. What we lack and what we have to look for as well as design are the right processes and instrumentalities. Possibly prolonged enslavement destroys or at least dulls and makes rusty the skills of a people. It also seems to disorient them. Exploring ways for the restoration of the sense of discrimination and of the innovative skills is perhaps the major task which today faces our academics in the sciences as well as in the humanities.

Notes

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1. This impression is shared amongst others by many of those who teach and guide research in institutes like the IITs. I am told that such a view was also expressed by Prof M.G.K. Menon at the Indian Science Congress some time ago. Prof G. Sudarshan is said to hold an opposite view.

2. Shiv Visvanathan: *Organising for Science: The Making of an Industrial Laboratory*, OUP, 1985; p.16f.

3. IOL: MSS Eur C 144/17, Richard Temple to Northbrook, 18.2.1875.

4. Organising for Science, p.19. The Indian Association for the Cultivation of Science was formally established on 29.7.1876.

5. ibid. p.28

6. ibid. p.29

7. ibid. p.25

8. ibid. p.26

9. ibid. p.31

10. ibid. p.33

11. ibid. p.33

12. ibid. p.37; also in *Young India,* 27.12.1923, 'The Call of the Charkha', Acharya Prafulla Chandra Ray's address at the Khadi Exhibition, Kakinada, 25.12.1923

13. ibid. p.38

14. ibid. p.36f

15. ibid. p.41

16. ibid. p.42

17. ibid. p.45

18. ibid. p.45

19. ibid. pp.48–9

20. ibid. p.46f

21. ibid. pp.49–50

22. ibid. p.57

23. ibid. p.53

24. Hortus Malabaricus happens to be one of the few sources cited by Linnaeus, the 'father' of modern European Botany.

25. Dharampal: Indian Science and Technology in the Eighteenth Century: some contemporary European accounts, (Vol.I of the *Collected Writings*) gives some details of the many technologies mentioned in this para.

26. Dharampal: The Beautiful Tree: Indigenous Indian Education in the Eighteenth Century, Other India Press, 2000; reference is to the mid-17th century account of Peter Della Valle; also early 19th century references to the borrowing of the Indian monitorial method of teaching children, for teaching in schools in Britain from 1800 onwards.

27. Captain Hiram Cox: Journal of a Residence in the Burmhan Empire and more particularly at the Court of Amarapoorah, London, 1821, pp.33-45; the journal is for the period 8.10.1796-1.11.1797; entry on oil wells is of 1.1.1797.

28. J. C. Carpue, 'An Account of Two Successful Operations for Restoring a Lost Nose from the Integuments of the forehead...to which are prefixed Historical and Physiological Remarks on the Nasal Operation including Descriptions of the Indian and Italian Methods,' London, 1816, pp.36-38

29. ibid. pp.39–40

30. ibid. pp.42–44

31. ibid. pp.48–49

32. Jitendra Gopal Borpujari, *The British Impact on the Indian Cotton Textile Industry 1757–1865*, Cambridge University, Ph.D thesis (1969–70).

33. Organizing for Science, p.57

III

THE SELF-AWAKENING OF INDIA

**The Self-Awakening of India: The Context of the Past, the Present and the Future* was the main title of three lectures delivered at the Rashtrothan Parishat, Bangalore, during the latter part of October 1987. The second of these lectures, *Some Aspects of Indian State and Society prior to European Dominance*, has been omitted entirely from this volume, as much of it is also appears in the first and second essays of this volume. Some portions of the first lecture have also been deleted for similar reasons. *The Self-Awakening of India,* therefore, now appears in two parts. These lectures were, with some editing, published in the *PPST Bulletin,* Chennai (No.13–14, March 1988, pp.1–31). They were also published in *Manthan,* Delhi (July, August and Sept 1988). *Manthan* also published them in Hindi. The Rashtrothan Parishat published them in Kannada in 1989 under the title, *Bharata Jagruti* (pp.118).

INDIA'S RESPONSE TO THE LOSS OF FREEDOM AND ENSLAVEMENT

I am greatly honoured to be invited by the Rashtrothan Parishat to deliver the present series of lectures on the theme: 'The Self-Awakening of India: The Context of the Past, the Present, and the Future.' It will be presumptuous of me to even think that I could do any justice to such a wide area as indicated by the title. At the most I can skim over the subject, perhaps to a small degree impart to this great gathering which has assembled here today, a few of the facts about the India and Europe of about 200 years ago. These, I may mention, I have gathered in the past 20 years or more, mostly in the archives holding materials on India in Great Britain. I may also give some expression to my own doubts, the questions which arise in my mind as a result of reflecting on these old facts, and in general, share with you my hopes and aspirations about our country and its place in the world around us. I hope you will bear with me and with my inadequacies in expression as well as in content during the course of these talks and correct me where I may seem to be going astray.

In today's talk—as well as in the concluding talk—I shall be making many references to some of the great men of India's 19th and 20th centuries including Swami Vivekananda and Mahatma Gandhi. I may at times appear somewhat critical of some of them, but that will not be because of any lack of reverence for them. Rather, this critical glance is adopted to help me (and perhaps many of you who may be attending these talks all the evenings), to understand their role better: to gain a better appreciation of their opportunities as well as their constraints. This approach may also be helpful in locating the sources of some of the problems and attitudes which seem to recur again and again in India since about 1800; and, even more so, since 1947, when we parted company from British imperialism, ostensibly to run our affairs in our own way.

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One of the attitudes which in fact has become a sort of sacred belief with most of us, is our total mental and spiritual dependence on the world outside India, especially on the capitalist, social-democratic and Marxist world of the West. The dependence is not only restricted to gifted or technically competent men and financial resources; but even more so, on external theoretical and intellectual formulations in every sphere pertaining to our state, our society and our individual activity. And if I may say so, the way we have willingly, even enthusiastically, bound ourselves to the words and catch-phrases of the West, is a sad commentary on our civilisation. Though I am no scholar in such matters, I do not think that there was any time in our long history when we, as a people, had bound ourselves so completely even to the words of the Vedas, or of the Bhagavad Gita, or of the Upanishads, or to the Manusamhita, or even to the words of the great Gautama Buddha or Adi Sankara or Basaveshwara.

It is not only our politicians, scientists, engineers, philosophers, political-scientists, economists, sociologists, leaders of social movements, or even dissident movements for whom the words of the capitalist, or social-democratic or marxist West are like words from the ancient scriptures; even to the followers of Mahatma Gandhi, the West has become a great beacon. It is not only that we believe that we have begun to comprehend Gandhiji through Richard Attenborough's film 'Gandhi'. We also seem to require an Eric Schumacher to appreciate the concept of appropriate technology, and a Masanobu Fukuoka to appreciate agriculture as a way of life and to be carried on without chemical fertilisers and with minimum disturbance of the soil. One of the consequences is that the present day Khadi and Village Industries network is walking the streets of the West in search of markets, and the production of sugar from the palm tree, is being accelerated so that it can be spread to the discerning in Europe and the U.S.A.; while it is mill-sugar, mill-flour, milled-rice, cloth made of synthetic fibre, chemical fertilisers in agricultural fields, and even the occasional ploughing by tractors which has become the routine even in the Gandhian ashrams. The prevalence of such a situation in other Indian institutions and the Indian home, even the homes of the elite, needs no elaboration.

In retrospect, the period from about 1919 (or perhaps from 1916 itself when Gandhiji's speech at the inaugural of the Benares Hindu University made the great Maharajas, the ruling elite, and Mrs Annie Besant walk out of the meeting-place as a protest against what he had said) to about 1945, or perhaps even till 1947, may possibly be treated in today's environment as a period of the great illusion. For, during this period of Indian innocence, large sections of the Indian people began to believe that they could at least build a world of their own; a world constructed according to their own concepts and ideas; and that perhaps they may then even be able to help the rest of the world to return to sanity. Even sceptics like Jawaharlal Nehru at certain moments seem to have fallen under such an illusion. And it is possible that many in the West, especially of the more reflective and imaginative type, also at times felt that India may have a relevant message, and may perhaps serve as a world model.

A similar belief about the possibility of an altogether new beginning, in continuity with the 1919 to 1945 period, seemed to have opened up, though only during a brief few days, at the end of March 1977, after the defeat of Shrimati Indira Gandhi, and the victory of the Janata combine under the inspiration of Shri Jayaprakash Narayan. But the habits and the assumptions of the past, built over several generations (during 1800 to 1919, and again during 1947 to 1977) asserted themselves and India reverted to its unthinking imitative role. This role benefits not even half percent of the Indian people, in European idiom, the officer class of India. It maintains their privileges, but is certainly ruinous to the social as well as private lives of at least 80% of India's people. The initiative which seems to have reverted to the majority of India's people, during 1919 to 1945 when as early as 1928, 1929, 1930 the people of India are said to have become virtually free, was again largely snatched away from them after 1947, and what remained was allowed to erode in the flow of time.

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It is possible that an indigenous initiative (even in borrowing, appropriating, internalising, and thus transforming the borrowed to fit the Indian frame), has not been sustained in India in recent history. It is true that much damage was done to India by the aggression of people professing Islam—especially during the period A.D. 1100 to A.D. 1700. It certainly split Indian state and society apart in most of Northern India and the shock waves of it were felt in distant areas. Still, by the beginning of the 18th century, it is not the aggressor professing Islam who exercised effective political power in India, but such power was exercised by the Marathas over large areas of India and by the various Hindu Rajas in large parts of Karnataka, the Tamil and Malayalam areas, in coastal Andhra, in Orissa, in large tracts of Madhya Pradesh and in parts of Bengal. The Marathas as well as the Rajas failed, however, to consolidate their power. They were unable to reforge adequate links between state and society, and thus speedily lost to the Western onslaught. But it is not only in the 18th century that such a failure occurred. Even Vijayanagara, inspired and advised by Acharya Vidyaranya, and Shivaji, blessed and advised by Samarth Ramadas, do not seem to have done too well. Even going further back to the days of the Kauravas and Pandavas, to the great battle waged between them, the sum total result of the goading of the Pandavas to battle by the great Sri Krishna ultimately led to the total collapse of Indian civilisation, perhaps for millennia. Pillay Lokacharya, a 14th century Tamil author has stated that after the public disgrace suffered by Draupadi, Sri Krishna had decided to destroy the Pandavas, but desisted from doing so when he noticed Draupadi's *mangalsutra*. Yet the way Sri Krishna went about things did result not only in the destruction of the Kauravas, but in the destruction of the Pandavas too.

Incidentally, even more than Sri Krishna, it is Draupadi who seems to be the central character of the Mahabharata, a Draupadi who is believed to have passed through fire every time she stopped living with one Pandava brother to live with one of the others. Her *pativrata* state (as is well-known, she is one of the five great Hindu *pativratas*), enabled her to pass through fire unscathed and come out without any blemish, or spot, pure as a virgin. Many of the so-called acts of post-1700 individual 'sati' (the word seems to have been used in the sense of a widow cremating herself with the body of her dead husband by the British in the late 18th and the early 19th century) perhaps are sort of reversion to the passing through fire of Draupadi and an enactment of what she is supposed to have done but in a wholly different context. While the acclaim of such 'sati' incidents by the unenlightened of the country-side and small towns and their condemnation by the moderners has relevance of their own, it will be appropriate that scholarly India tries to locate the possible roots of this practice, tries to comprehend the supposed passing through fire of Sita, Draupadi and others, and interpret their meaning and psychological consequences in the context of today. It may be recalled that practically every locality in India has a 'Devi' shrine, or temple; and every such 'Devi' is treated as a 'sati' in the original sense of the word by all those who are devoted to these shrines.

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By 1800, though many areas were still directly unaffected by British power, the mind and intellect of India seems to have bowed down to British power and accepted its superiority. That the British were devilishly crafty and clever had been noted in India from much earlier. Aliverdikhan of Bengal expressed such a view in the 1750s; and Ranjit Singh, after being shown a political map of India, is said to have observed that the whole of the map will become red. Red was the colour of the areas under British rule. Warren Hastings had seen this decline of Indian confidence and intellect by 1780, if not earlier. And by 1790, William Jones, the British judge at Calcutta and known as the founder of Indology, had begun to claim that he knew the *sastras* better than even the great Pandits of Varanasi. On the decision of the Varanasi Pandits that the utmost punishment for a Brahmin was a black mark on the forehead and exile from his home region, William Jones stated that the *sastras* prescribed that the mark on the forehead was to be made by hot iron. Incidentally marking by hot iron was a British judicial practice till the mid-18th century. And if branding by hot iron was right and legitimate in Britian, it had to be right and legitimate in India too. Following such logic, as the British tenant cultivator had no right over the land he cultivated and could be ejected at the will of the British landlord, it followed that the Indian peasant, who from time immemorial had inalienable hereditary possession of the land under his cultivation, could also similarly be ejected from his land at the will of the British-created landlord, or at the whim of the British Indian state. The Indian peasant, according to British rationale, could enjoy no higher rights than his counterpart in Britian.

The erosion of self-confidence and the defeat of the intellect, and the splitting of the elite from its own people (who alone could have given it any sort of spiritual or intellectual sustenance), naturally led to the imitation and adoption of British ideas and preferences. If William Wilberforce, the greatest Englishman of the 19th century and known as 'Father of the Victorians' thought that the Indians could only be leading ignorant and wretched lives 'without the blessings of Christian light and moral improvements', it had to be treated as true. Thus a completely new imagery developed about India. This imagery was given powerful literary garb by men like James Mill, one of the chief executives in the British Governance of India and the author of the voluminous *History of British India*. The black Englishman of Macaulay was already on the scene, and speedily being duplicated, much before Macaulay had anything to do with India. Some years before Macaulay's arrival in India, the British Governor General Bentinck expressed satisfaction that prosperous and leading Indians were giving up the feeding of Brahmins and beggars and instead had taken 'to the ostentatious entertainment of Europeans'. Not that all resistance to the British had ceased but the resistance of the elite was no longer against British ways and preferences but rather against the British habit of not allowing the Indians to have any share in the exercise of power. The Indian elite, of the 19th and the 20th century, by and large, merely desired that the British would function as the Mughals had done earlier on when men like Raja Man Singh, or Raja Todarmal were treated like Mughal nobles and governors and were given important roles in the maintenance of imperial Mughal rule over the people of northern and western India. This attitude of the Indian elite, even of many of those who called themselves 'sipahis' of Mahatma Gandhi continued more or less uninterruptedly till the time when Britain decided, or was persuaded, to transfer power to Indian hands.

It is in such a context that, as time passed, the Indian elite began to look at India through British eyes. Indians began to be seen as wretched and ignorant the way they had appeared to William Wilberforce, or to James Mill, or to Macaulay, or to Karl Marx. To Karl Marx, the commencement of Indian misery lay 'in an epoch even more remote than the Christian creation of the world'. He stated that in spite of 'whatever may have been the crimes of England' in India, England 'was the unconscious tool of History' in bringing about what Marx so anxiously looked forward to: India's Westernisation. Even Indian scriptures, the *smritis*, the text on law, the scholarly works had to pass through the intellectual and spiritual sieves of Europe. What ever received approbation or approval had to be accompanied with suitably selected commentaries and newer interpretations. It was not only the ostentatious entertainment of Europeans which henceforth became the aspiration of the Indian elite, but the readings of the approved and acclaimed Indian texts; and even more so, an uncritical attachment to the philosophies, theories and literature of Great Britain became the new opium of the Indian elite. That this is no exaggeration is evident from continued Indian fascination not only with Plato and Aristotle, or the Roman historians, but even with Francis Bacon, Thomas Hobbes, Bishop Berkeley, John Stuart Mill, or men like Bertrand Russell.

Naturally, all this had to result in movements like the Brahmo Samaj, and its various other versions in different parts of India; the long lasting fascination of the Indian elite with theosophy, a new variant of the ancient Masonic orders of Western Europe; and with the various ideologies which have come out of Europe in the past century and a half. Even when we wished to be patriotic, or wished to hark back to the past, the medium and the guide had to be the discipline of Indology or Orientalism, or some foreign traveller from the West or the East, who had happened to live in or pass through India since the time of the Greek adventurer Alexander.

In such a situation, the Indian elite's response to the loss of freedom began to be couched in a Western idiom. Hence the Westernised pronouncements of patriots like Ram Mohan Roy (Monstuart Elphinstone regretted that Ram Mohan Roy was presenting himself as too much of a *firangi*) of Keshav Chandra Sen, of the illustrious Bankim Chandra Chattopadhyaya, of Iswara Chandra Vidyasagar, or of the Indologist Rajendralal Mitra. To each one of them, the European and British intervention in India seemed a divine boon. It is possible that in comparison to what they had learnt about the oppressions of the Muslim rulers, mostly either through hearsay, or through European compiled accounts, the British rule looked like the rule of angels: tranquility and order prevailed and the men of property felt secure from one generation to another.

Such men perhaps had also begun to believe in the theory of the common origin of the Indo-European peoples; and in their own way, even before Frederic William Max Mueller, had begun to look forward to the day when these long parted cousins could join hands in some shared common enterprise. Explaining his works, Max Mueller had mentioned to Gladstone, many times prime minister of Great Britain, that what he was trying to do was to bring together some 1800 years after Jesus of Nazareth, those who had got separated around 1800 years before Jesus' birth.

It was not only those given to social reform or to the spread of education, or dedicated to what is called an Indian renaissance (based ironically on Western and British guidelines) who became the promoters of European knowledge (sacred or profane) in India and dependent on Western goodwill. Those attracted by Western science and technology (not of the time of nuclear power, or of flights to the moon, etc., but of a time when steam power ruled and children of 10 or less worked long hours in British industry and electricity and the internal combustion engine had yet to make an appearance) also began to think of promoting and extending Western science and technology in India. The British, however, seem to have looked at this promotion differently. The Governor of Bengal, Richard Temple, felt that the diversion to science from law, public administration, prose, literature, etc., required to be welcomed, as in the field of practical science the Indians 'must feel their utter inferiority to us.'

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It is in such an age that Vivekananda and his *guru-bhais* received their nurture and their education. They were all students of Calcutta colleges—a far greater accomplishment and privilege in those days than now. Their close contact with Sri Ramakrishna Paramahamsa was a turning point in the life of each of them and perhaps even more so in the life of Vivekananda than of the others.

Though a product of the same 19th century Bengal Bhadralok environment, Vivekananda was in many respects very different to the older and more wellknown men of the Bengal renaissance.

We see intense patriotism in every facet of Vivekananda's life and works. He also had a deep grounding in the *sastras*. He also seems to have been much superior in intellectual rigour, in sensitivity to India's problems, and with a natural empathy, with the poor, the down-trodden, and the oppressed in India.

Sri Ramakrishna Paramahamsa passed away on 15 August 1886. Four years later, on 26th May 1890, Vivekananda wrote a long letter to Sri Pramadadas Mitra, an elder, wealthy and respected devotee of Sri Ramakrishna who had been living in Varanasi. In it he said:

> For various reasons, the body of Bhagavan Ramakrishna had to be consigned to fire. There is no doubt that this act was very blameable. The remains of his ashes are now preserved, and if they be now properly enshrined somewhere on the banks of the Ganga, I presume we shall be able in some measure to expiate the sin lying on our heads. These sacred remains, his seat, and his picture are every day worshipped in our Math in proper forms and it is known to you that a brother disciple of mine, of Brahmin parentage, is occupied day and night with the task. The expenses of the worship used also to be borne by the two great souls mentioned above...
>
> What greater regret can there be than this that no memorial could yet be raised in this land of Bengal in the very neighbourhood of the place where he lived his life of Sadhana (spiritual struggle)—he by whose birth the race of Bengali's has been sanctified, the land of Bengal has become hallowed, he who came on earth to save the Indians from the spell of the worldly glamour of Western culture and who therefore chose most of his all-renouncing disciples from university men?...
>
> The two gentlemen mentioned above had a strong desire to have some land purchased on the banks of the Ganga and see the sacred remains enshrined on it, with the disciples living there together; and Suresh Babu had offered a sum of Rs.1,000 for the purpose, promising to give more, but for some inscrutable purpose of God he left this world last night! And the news of Balaram Babu's death is already known to you...
>
> It is impossible with a sum of Rs.1,000 to secure land and raise a temple near Calcutta. Some such land would at least cost about five to seven thousands...

> You remain now the only friend and patron of Shri. Ramakrishna's disciples. In the North-Western Province, (i.e., Uttar Pradesh) great indeed is your fame, your position and your circle of acquaintance. I request you to consider, if you feel like it, the propriety of your getting the affair through by raising subscriptions from well-to-do pious men known to you in your province. If you deem it proper to have some shelter erected on the banks of the Ganga in Bengal for Bhagavan Ramakrishna's sacred remains and for his disciples, I shall with your leave report myself to you, and I have not the slightest qualm to beg from door to door for this noble cause, for the sake of my Lord and his children. Please give this proposal your best thoughts with prayers to Vishvanatha. To my mind, if all these sincere, educated, youthful Sanyasins of good birth fail to live up to the ideals of Shri Ramakrishna owing to want of an abode and help, then alas for our country...
>
> If you ask, 'You are a Sanyasin, so why do you trouble over these desires?'—I would then reply, I am Ramakrishna's servant, and I am willing even to steal and rob, if by doing so I can perpetuate his name in the land of his birth and Sadhana (spiritual practice) and help even a little his disciples to practise his great ideals. I know you to be my closest in kinship, and I lay my mind bare to you. I have returned to Calcutta for this reason...
>
> If you argue that it is better to have the plan carried out in some place like Kashi, my point is, as I have told you, it would be the greatest pity if the memorial shrine could not be raised in the land of his birth and Sadhana! The condition of Bengal is pitiable. The people here cannot even dream what renunciation truly means—luxury and sensuality have been so much eating into the vitals of the race.

It seems that Sri Pramadadas Mitra did not send an encouraging reply. This seems to have caused profound unhappiness to Vivekananda. The issue was indeed painful. No doubt that by then Bengal had been rendered impoverished and destitute for a considerable time. But the fact that no resources could be raised for erecting a memorial for a person, whom many influential persons such as Keshav Chandra Sen, Giris Chandra Ghosh, Isan Chandra Mukhopadhyaya, Balaram Bose, Shambhunath Mallick, Man Mohan Mallick and many others, used to frequent, is clearly an instance not of material impoverishment but of mental and spiritual impoverishment of society.

It may perhaps be claimed that in reality Sri Ramakrishna Paramahamsa in his own life time was not all that famous a person in Bengal, and his following, except for a dozen or a score of young men, was hardly worth counting: But it is more reasonable to grant that the extent of our mental and spiritual impoverishment was such that no substantial resources could then really be raised even for Sri Ramakrishna Paramahamsa's memorial.

This response obviously shook Vivekananda. To know the cause of such a state and to know his country better, he set about travelling through India. From then on he was on the move continuously. Wherever he went, he received love and respect. But he did not receive, perhaps he did not even seek, any substantial financial help. Then he reached Kanyakumari and meditated on the now celebrated Vivekananda Rock. After some weeks he dreamed that Sri Ramakrishna was beckoning him from amidst the ocean. This became the signal for his foreign travel.

Actually the World Congress of Religions at Chicago was not the reason why Swami Vivekananda set forth abroad. The reason was very different, much larger and serious. He wanted to acquaint himself with the functioning of other societies. He saw the prosperity of Europe and America, their power and organisation. He saw their vigour and was very impressed. His numerous letters give detailed and poetic description of his impression. These letters reveal his intense love for India, his understanding of India and of the world, and his sorrow at India's material and spiritual impoverishment. He wrote to Alasinga Perumal on 6th March 1895: 'Do not for a moment think the "Yankees" are practical in religion. In that the Hindu alone is practical, the Yankee in money-making, so that as soon as I depart, the whole thing will disappear. Therefore I want to have a solid ground under my feet before I depart. Every work should be made thorough' and added, 'Work on, my brave boys. We shall see the light some day.'

In the above we can see the profound anguish and sensitivity of Vivekananda as also his love for India. From his own personal experiences, he arrived at the conclusion that India's regeneration is possible only when we can muster outside help both in money and men (and women) for the cause. It is thus that the initial growth of the Ramakrishna Mission took place with foreign financial resources.

While Vivekananda had deeply immersed himself in Sri Ramakrishna Paramahamsa, he was also able to see the practicality of things—what was to be discussed and in which forum and how. So in the West he propagated Sri Ramakrishna's teachings via rational formulations. As he clearly stated in a letter to a fellow disciple:

> There is no gain in hastening my return from this country. In the first place, a little sound made here will resound there a great deal. Then, the people of this country are immensely rich and are bold enough to pay. While the people of our country have neither money nor the least bit of boldness.

Earlier, on 29th September 1894, he wrote to Alasinga Perumal:

> Our field is India, and the value of foreign appreciation is in rousing India up. That is all...We must have a strong base from which to spread...Do not for a moment quail. Everything will come all right. It is will that moves the world.
>
> You need not be sorry my son, on account of the young men becoming Christians. What else can they be under the existing social bondages, especially in Madras? Liberty is the first condition of growth. Your ancestors gave every liberty to the soul, and religion grew. They put the body under every bondage and society did not grow. The opposite is the case in the West—every liberty to society, none to religion. Now are falling off the shackles from the feet of Eastern society as from those of Western religion.
>
> Each again will have its type; the religious or introspective in India, the scientific or out-seeing in the West. The West wants every bit of spirituality through social improvement. The East wants every bit of social power through spirituality. Thus it was that the modern reformers saw no way to reform but by first crushing out the religion of India. They tried and they failed. Why? Because few of them ever studied their own religion, and not one ever underwent the training necessary to understand the Mother of all religions. I claim that no destruction of religion is necessary to improve the Hindu society, and that this state of society exists not on account of religion, but because religion has not been applied to society as it should have been. This I am ready to prove from our old books, every word of it. This is what I teach, and this is what we must struggle all our lives to carry out. But it will take time, a long time to study. Have patience and work. Save yourself by yourself.

In his letter of 6th April 1897 to the scholarly editor of 'Bharati', Shrimati Sarala Ghosal, he wrote:

> It has been for the good of India that religious preaching in the West has been and will be done. It has ever been my conviction that we shall not be able to rise unless the Western people come to our help. In this country, no appreciation of merit can yet be found, no financial strength, and what is most lamentable of all, there is not a bit, of practicality...I have experienced even in my insignificant life that good motives, sincerity, and infinite love can conquer the world. One single soul possessed of these virtues can destroy the dark designs of millions of hypocrites and brutes...I only want to show that our well-being is impossible without men and money coming from the West.

In this way, Swami Vivekananda brought money and inspired men and women to come from abroad. Miss Margaret Noble, or Bhagini Nivedita, was one of those. We find that Bhagini Nivedita later helped the eminent scientist Jagadish Chandra Bose in editing his works; she also helped and translated some of the works of Brajendranath Seal. The conclusion from all this is that our bhadralok had totally lost the capacity to identify the capacities and talents of this society and take them forward. No healthy society in the world would dream of achieving functionality and regenerating its creativity with foreign help.

Vivekananda had a great deal of confidence in India's men and women. However, even he could not escape from being seriously affected by whatever image and model, that the newly educated class had already built, of our society: the age-long deprivation, wretchedness and ignorance of our ordinary people.

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This image of India was not its own traditional self-image; nor had it any relation with historical facts. However, such an image was deliberately built up during the 19th century by the efforts and encouragement of the British; of theoreticians of the West; and through the policies and institutions initiated by the British Indian State. The newly emergent elite in Bengal, as also many others, were instrumental in taking this image forward. For instance, Ram Mohan Roy was opposed tooth and nail to the idea that modern learning and science be learnt through the medium of Sanskrit and other Indian languages. He somehow had been convinced that these Indian languages could be the vehicle only of ancient codes and speculations on the world beyond; and that Western knowledge could only be learnt through languages of the West. This was indeed a peculiar position. The Westerners themselves obtained knowledge of India and the East in their own languages; but India was to learn the knowledge of the West only through the language of the West. Surely, behind such a view, was a feeling of deep contempt for the Indian languages, the Indian intellect and the Indian people. Of course this is not to imply that people like Ram Mohan Roy had any hatred for the Indian people, or lacked patriotism. Quite possibly they had been lured by the power of the West, and felt that India's salvation lay in becoming like the West. Only their understanding of the West lacked any depth.

Around 1880, Keshav Chandra Sen declared in England:

> If you look at India today you will no doubt find widespread idolatry, a system of caste such as cannot be witnessed elsewhere, social and domestic institutions of an injurious character, and prejudices, error, superstition and ignorance prevailing to a most appalling extent.

Around 1900, Rabindranath Tagore wrote:

> Our country having lost its links with the inmost truths of its being, struggled under a crushing load of unreason, in abject slavery to circumstances. In social usage, in politics, in the realm of religion and art, we had entered the zone of uncreative habit, a decadent tradition, and ceased to exercise our humanity.

The promotion and extension of an intellectual climate with a peculiar combination of self-pity, self-condemnation and at the same time decrying the self-image of India in the fulfillment of European goals thus became, perhaps inadvertently, the job of men like Rabindranath Tagore. Such promotion ultimately led to the growth and duplication of Westernised personalities like that of Pandit Jawaharlal Nehru.

Due to their faith in theories of the progressive evolution of consciousness, persons like Jawaharlal Nehru, saw the highest stage of thought in the Western thinkers and the highest stage of society in Western society. Hence, it was that the education organised by the British was, for Jawaharlal Nehru, the only possible route to knowledge and virtue. He, therefore, could argue that there can be neither virtue nor knowledge amongst our villagers amongst whom the new education system had not spread. So he conceived that a major function of the state, with him at the helm, and run by Western educated Indians (though their Westernisation may have belonged to Europe’s 19th century), was to liberate the crores of Indians from a state of ignorance and moral degeneration; and convert them into the sort of people cherished by William Wilberforce or Karl Marx.

While our newly emergent elite responded to the loss of freedom by seeking much deeper enslavement as the sole means of liberation, the larger Indian society reacted in an opposite way: trying to keep its cultural symbols and ideals as its beacon, while repeatedly organising itself. The 1857 resistance to British rule was one effort of this sort. Between 1880 and 1894, there was a major cow-protection movement in India, especially in the northern and central regions. A widespread net work of cow-protection sabhas were established in which Hindus, Muslims as well as Christians, the wealthy as well as the poor, men as well as women, young and old, all were actively involved. The movement was described by the British Viceroy as dangerous as the events of 1857–1858. The British Queen was of the opinion that the movement was aimed against the British, and not against the Muslims. The larger Indian society had been relentlessly striving to express itself using forms and symbols which were linked to its own civilisational spirit and consciousness. In these efforts, one does not see any trace of a feeling of contempt for, or dejection with Indian institutions, the Indian way of life, or Indian ideas.

In Mahatma Gandhi, there was no trace of any contempt or dejection for things Indian. So the whole of India arose as one man under his leadership. The views of Mahatma Gandhi on India were fundamentally different from those of the modern educated Indians. Gandhiji’s view was that the larger Indian society had great merit; and in spite of there being several evil tendencies and distortions, it had great internal strength and capacity. If ordinary people could be provided with necessary and adequate resources for organising themselves and giving expression to their own priorities, they can then once again build a great civilisation—as they had been doing for thousands of years. He agreed that there may still be some quarrels and disturbances periodically, some ups and downs, some internal conflicts and animosities, and some amount of injustice—but all this would be considered improper (*adharma*) as violating accepted norms and will by the people themselves be severely condemned and restrained. It seemed to him therefore necessary that the larger Indian society should again be put in possession of adequate resources, which it had at least partially retained even during Islamic rule, but of which it was totally deprived of during British rule. Gandhiji had full confidence in the capacity of the Indian people and India's resources, and based on this perspective as well as his own unparalleled organisational skill, he was able to mobilise a nation-wide movement.

We thus see that during the time of British rule, there had been two different responses to the loss of freedom and enslavement of our society. One was the response of the larger Indian society of which Gandhiji was the exemplary leader. The other response was from the powerful and elite classes who, in spite of the call, exhortations, and charisma of Swami Vivekananda were getting more and more estranged from the wider Indian society and who became the carriers of a prolonged habit of total surrender and subservience to most conquerors. It is clear that the clash of the larger Indian society which sought freedom (*swaraj*) was not with this elite; it was with the conquering Western civilisation.

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II

INDIAN SELF-IMAGE, FUTURE PROSPECTS AND EXPLORATION OF POSSIBILITIES

We have dealt elsewhere in detail with certain aspects of Indian life and society around two hundred years ago, about the time when India began to be systematically conquered by Great Britain. The data indicate that in terms of social functioning, infrastructural arrangements, and the quality of ordinary life, India did not seem to be doing too badly during the period. And perhaps the life of the ordinary citizen, i.e. of about 80% of the Indian people, was in many ways both as regards their consumption and their habitats was superior then, than it has been during the last century and a half. An eminent economist has recently estimated that the wages of an agricultural labourer in Chengalpattu around 1795 was around Rs.7.50 per day while the wages of a similar labourer in 1975 was only Rs.2.50, both wages being calculated at 1975 prices. Also, the data indicate better supra-local arrangements. If the indication of this data were followed through by further research, it may be found that in a social cultural sense, our society had better organisational linkages than it has had since then. The data perhaps also suggests that militarily in comparison to the West, this was a weak society; and that, therefore, it did not have any strong urges towards systematic organised innovation, or any particular fascination with the concept of progress.

Though most of our major historical personalities of the 19th century and even of the early 20th seem to have had little inkling of such being the structure of our society, Mahatma Gandhi did seem to have some acquaintance with its general functioning. Much of it is indicated in *Hind Swaraj* though it is true that the picture which *Hind Swaraj* provides is rather too idealised and utopian. But then *Hind Swaraj* was essentially a polemical document and was aimed at contrasting the civilization of India with the civilization of the modern West.

However, when it came to concretising the basic frame of this earlier Indian model, Gandhiji did try to convey it through various means. One of the earliest, and perhaps the most major, way of concretising the earlier Indian structural arrangement was in the constitution of the Indian National Congress. The Congress was given a popular base, and its units were organised on the basis of locality, linguistic region, and the country as a whole. When asked in 1931, in London, how a free India would be organised, Gandhiji had said that this had already been indicated in the 1920 constitution of the Congress. In January 1930, Gandhiji spelled out, in the independence pledge, the great damage done to India by British rule. The pledge stated that India had been ruined by the British not only politically and economically, but also culturally and spiritually. A year later, in March 1931, the Congress adopted the resolution on the national objectives of the freedom movement, spelling out what India would do when she became free.

By 1938, freedom seemed to be not too distant. The more western-minded leaders of India—political, academic, industrial—began to contemplate planning for the future. One of the results of this was the National Planning Committee of the National Congress, appointed by then Congress President Subash Chandra Bose, and presided over by Jawaharlal Nehru. The main committee had 15-20 members, including academics and leaders of Indian industry. It constituted about 30 sub-committees, which dealt with a variety of subjects. Over 200 persons, a few of them still prominent in today's Indian public life, were associated with the work of the national planning committee. The reports of the main committee, as also of the sub-committees, were published around 1947, consisting of some 30-35 volumes. Today, we can clearly see that the main stress in these reports is on economics; the direction, western-modern; the approach, largely mechanical and cliche-ridden; and on the whole, the product is largely shoddy. We must, however, also remember that most of the work was done at a rather difficult period, with the president and many of the members of the committee being in prison most of the time during 1940-1945.

During some particular deliberations of the Cottage Industries sub-committee of the main body, held at Wardha, around September 1939, Gandhiji is said to have consented to a programme of modern industrialisation, provided that the promotion and extension of cottage industry went hand in hand with modern industrial development; that 'India was definitely not to depend on foreign loans for development'; that all money, private as well as public, was mobilised for this purpose; that 'a certain standard of living had to be defined as the objective'; and that both the modern industrial plan as well as the plan of cottage industry 'approximated to each other within a comparable measure of time.'

Earlier on, in 1934, while initiating the village industries movement, he had written: 'If the villagers had enough to eat and clothe themselves with, there would be no cause for home-grinding or home-husking, assuming that the question of health was not of any importance, or if it was, there was no difference between home-ground flour and mill-ground, or home-husked rice and mill-husked.' Still earlier, in 1925, he told someone from the Punjab, that 'in the present state of India, anything like a universal introduction of electric power in our villages, is an utterly impracticable proposition', but he had added, 'that time may come.' Incidentally, during 1922-23, but at the time when he was in prison, *Young India*, Gandhiji's weekly, had envisaged a militia of one crore of men when India was wholly free. There can be little doubt that this had been written in accordance with Gandhiji's general ideas on the practical and the feasible.

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It is natural that the question, of the organisation, structures, institution, and economy of India when it regained its freedom and initiative must have been discussed in various forums, by various people, from the early years of the present century. How extensive and deep such discussions were, and what were the various values and concepts on which the future structures were to be erected, can only be known through an intensive research into the thought and experience of this period as well as into the thought and experience of the 19th century which preceded it. Like an untold number of other crucial tasks, this task also has yet to be initiated.

In 1945, the Congress Working Committee (i.e. the chief executive body of the Congress, though perhaps not its brain trust or think-tank) seems to have deliberated on the shape of things in the free India. Though no records of the discussions seem to be available yet, it seems that it was somewhat heated and perhaps even acrimonious. An idea of it comes through a letter of Gandhiji to Jawaharlal Nehru. In his letter of October 2nd, 1945, Gandhiji said: 'I take first the sharp difference of opinion that has arisen between us. If such a difference really exists, people should also know about it, for the work of Swaraj will suffer if they are kept in the dark.' Gandhiji wanted a public discussion on this point, perhaps not only in the All India Congress Committee (the general body of the Congress), but also in the country at large.

Such a discussion did not suit Jawaharlal Nehru and perhaps many others who had cast their lot with western modernism and with the British structures and institutions which had existed and had been running India for nearly two centuries. He therefore wrote to Gandhiji: 'How far it is desirable for the Congress to consider these fundamental questions, involving varying philosophies of life it is for you to judge. I would imagine that a body like the Congress should not lose itself in arguments on such matters which can only produce great confusion in people's minds resulting in inability to act in the present'; he added, as a sort of warning: 'This may also result in creating barriers between the Congress and others in the country.' In his normal equivocal manner, Nehru tried to retract this by adding that, 'ultimately of course this and other questions will have to be decided by representatives of free India.'

From 1946 to 1949, the representatives of free India did meet in a Constituent Assembly. But practically on every point they were faced with a *fait accompli.* Various expert committees of course had been set up to help draft the constitution. But most members of these were occupied otherwise. Therefore, the draft of the constitution was a mish-mash of the existing British frame-work of Indian governance, and of bits and pieces picked up and joined to it from the countries of Europe and the United States of America. Heated debates took place on various aspects of the draft prepared by the Law Minister and the Constitutional Adviser, both mentally westernised to an extreme degree. But nothing much could be altered as regards the basic framework, because doing so would have delayed the adoption of a new constitution beyond a previously decided deadline for its completion.

The constraint of the date was in fact brought to the notice of the President of the Constituent Assembly by the Constitutional Adviser when a heated debate took place on the basic unit of the new polity—whether it should be a locality or a habitat (as was the historical Indian practice), or it should be the adult individual as obtained in the Western world. With such a sacred constraint—much like the still current constraint of the astrologically forecast auspicious moment for this and that—no basic alteration could be made in the draft. Additions, etc., of course, were made; but these only added to the bulk of the Articles and the paper on which these were printed; making the Constitution fool-proof: i.e., completely irrelevant with regard to any major transformation in the Indian polity by constitutional means. Inadvertently, the exercise made the Indian political system even more frozen and unworkable than it already was during British Rule.

The assurance of Jawaharlal Nehru that 'ultimately of course this and other questions will have to be decided by representatives of free India' turned out to be a mere eye-wash. Perhaps it was so intended. But whatever the intention, the consequences were the take-over of India by the westernised elite, and actually an elite whose familiarity of the West was merely limited to the 19th century West—for which Nature was an enemy, rationalism its god, and never-ending exploitation of physical resources the supreme goal. Further, even this acquaintance was largely superficial and couched in the rhetoric and cliches of the 19th century. The result: the political and administrative institutions of India and its basic scientific and technological concepts and knowledge, or its over-riding philosophical, political and economic ideas seldom moved beyond the European ideas of the early 20th century. These would be wholly incomprehensible today to most of the present day young men and women of Britain, from whose immediate ancestors these ideas were derived.

The results in most fields: wholly disastrous. I may add here that the Education Ministry of the Government of India did, in fact, a great service to India—the only service which it perhaps has ever done—when it produced the 1985 document, 'Challenge of Education'. This reviews the state of Indian education. I personally have little doubt, and I think many of you will agree with me, that if such reviews were done for other departments of government also—whether at the national or state levels—the findings will be similar to those of the education review; and governmental functioning even in Karnataka will be found nearly as dismal as in Delhi, or in most of the other states—with the exception of my own state of Uttar Pradesh, which will as usual occupy the bottom place.

It is only because of the ingenuity, the relative perseverance, and the robustness of our ordinary people, many of whom somehow make do without adequate shelter, or clothing, or even water, that we still survive as a people and as a civilisation. We (educated Indians) do not seem to much like whatever they do: the festivals and the fire-walking that they celebrate; the occasional unclad trance-dancing they resort to, despite all the obstacles we (the elite) put in their way, and the various other things which unknown to us are intimate parts of their lives. All these show, however, that they still are grounded in the soil of

India; and can be expected to see it emerge into a more worthwhile future notwithstanding our own alienation, indifference, and high-handedness.

But it is not only those who are directly tied to the Indian state system—the number of such persons adds up to about three crores, though only less than two lakhs of them have any say in decision-making or in actual control of others—the many lakhs who work in the social and cultural field in non-governmental capacities seem to have done little better. Many such persons are my friends; in fact I am no different from them. In a larger sense, we have become peripheral to the needs of Indian civilisation and society; unwittingly we have become the instruments of the erosion of Indian values and institutions. In fact, we have become even more tied than those serving the state to alien ideas and practices of all types. Though we may perform many tasks more economically and even with greater compassion, the psychological, mental and material chasm between us and our people is no less wide than it was say before 1920, or as described by Swami Vivekananda nearly a century ago.

The surrounding climate has so blunted our senses that even as patriotic and sacred and well run a place as the Vivekananda Kendra is unable to escape the effect of this alien environment. Situated in Tamilnadu within a mile of the famous rock and the ancient temple of Kanyakumari, we find in this centre of patriotism, the language of discourse—instead of being Tamil or Hindi—has become English; the verses on the walls of the meditation hall are in English; the captions to the exhibits on Vivekananda are in English alone, and even the medium of instruction for the little children in the excellent Kendra school is English. It is understandable why Hindi cannot be the sole language in these matters at the Kendra. But it is incomprehensible, at least to me—I know I am rather short-sighted in these matters—why Tamil could not have been adopted instead of English, or at least given first preference; and English or Hindi used to supplement Tamil. If this can happen at Vivekananda Kendra, it is little wonder that even villages or small towns which lie on the side of motor roads are proudly displaying that these villages possess one or more English-medium schools.

Personally, I have nothing against English, even to its becoming the *lingua-franca* of India if such is the considered national decision. Nor have I in a similar situation anything against the total westernisation of India in the western idiom of the present; not of course in the idiom of 19th century West; or in the idiom of Plato or Aristotle. But do we have the vigour, perseverance and capacity to devote ourselves deliberately and persistently to transform India into a functioning Western state and society? So far there are no such signs. We do not even actually aspire to do so, not even those who daily moan about the rise of superstition and fundamentalism in India, and about the decline of the scientific temper, rationality, and the Indian brand of secularism. Their disorientation and alienation has become such or the dazzle of the West is so attractive, that quite possibly if pushed a little harder most of this gentry will start queuing at United States consulates and similar other foreign sanctuaries, to represent that Westernised Indians have become victims of political discrimination and that they should be given refuge. If there were opportunities many of them may ask for some similar facilities from the USSR, or from the Arab Emirates, or from the other softer areas of the Arab World. One can only hope that their own efforts as well as time will cure them and bring them back to a state of Indianness. It is not that many of them lack talent or conviction. For their own good and for the good of India, it would be better if their talent and conviction were expressed in an Indian context, and not in a supposedly empty void.

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To gain some perspective and to understand our dilemma, we need to look at other countries. What happened in some of them when they were faced with somewhat similar issues? In search of answers, we can examine 19th century North America: where violence, stark individualism, cut-throat competition for increasingly acquired or discovered resources, and indifference to those who lost the race must have been rampant. But then white North America commanded vast resources, especially after it had virtually eliminated the indigenous peoples—who for the whole of the Americas are currently estimated at 90 to 112 millions at the time of Columbus (A.D. 1492)—a larger number than the total population of Europe at that time.

We can also look at 19th century Great Britain, whose physical resources were vastly poorer, but then Britain dominated most of the world in the 19th century. The other country we can look at, admired by many of us for nearly a century, even by Swami Vivekananda when he had a brief halt there in his first trip to the USA in 1893. That country is Japan.

Following the conversion of half a million of its people to Christianity by the Jesuits in the late 16th and early 17th centuries, Japan closed its frontiers to people from Europe for over two centuries. It is only around 1860 that it reopened itself to the Western world. In the intervening 200 years, it is claimed that Japan kept a very limited contact with the Dutch (which served as a sort of photographic camera aperture, through which Japan could concentratedly take note of what interested it and yet not be distracted by being exposed to what did not interest it).

Soon after Japan resumed links with the West around 1860, it sent some of its young men to the countries of the West. One of them, Maeda Masana, who went to France in 1869, felt very depressed for many months. Seeing Paris's splendour, he felt that Japan would never be able to match it. But soon after the Franco-German War, France seemed to be in shambles and had to rebuild itself again. While the happening itself must have made him sad, somehow his spirits picked up, and from then on Masana could write: 'I felt confidence in our ability to achieve what the West achieved.'

He returned to Japan in 1878, and became one of the chief architects of *Kogyo Iken*: Japan's ten-year plan, completed in 1884 in thirty volumes. Discussing the various constituents which were required to make such a plan functional, the document stated:

> Which requirement should be considered as most important in the present efforts of the government in building Japanese industries. It can be neither capital nor laws and regulations, because both are dead things in themselves and totally ineffective. The spirit/willingness sets both capital and regulations in motion…If we assign to these three factors with respect to their effectiveness, spirit/willingness should be assigned five parts, laws and regulations four, and capital no more than one part.

With this spirit and willingness, Japan made rapid strides in science and technology and emerged as a powerful nation. It may be worthwhile to recapitulate the impressions Japan made less than 40 years after the launching of the ten-year plan, on an eminent American inventor and engineer, Elmer Sperry in 1922. The following sums up what Sperry thought:

> Sperry left Japan in November with strong impressions of the country’s rapid strides in technology. At a time when many Americans thought of Japan as imitative and second rate, Sperry’s keen and experienced eye saw the unmistakable signs of technological excellence and maturity. Later, he carried this message to the worldwide engineering fraternity, which was also ill-informed about Japanese technology. Sperry had been especially impressed by two large dockyards, one of which he judged to be four times larger than any in America. He admired the systematic layout and operation of the yard, where they take in Swedish pig-iron at one end of the place (only it happens to be the middle) and put out a 33,000 ton battle-ship at the other end. He observed that America had only two model ship basins for scientific experiments but that Japan had four. In Japan he also saw superior machine tools which were, he knew, the essence of precision manufacture and represented a heavy capital investment. He judged a Japanese-built, horizontal milling machine and a forging press to be larger than any in America. In a decade when the construction of high-voltage electrical transmission networks, or grids, was a sign of advanced technology, Sperry found the Japanese construction of the finest kind, better than that he had seen in America.
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> He also heard that the Japanese had three times more high tension transmission lines per capita than the United States. The Japanese were no longer dependent upon the import of complex materials and machines such as generators, turbines and armor plate.

What spirit/willingness can do is even more apparent when we see today’s Japan. This seems to be a Universal law. It had been recognised in India also. According to our traditional wisdom also, the spirit is the deciding factor in the fulfillment of a goal, and not the tools. The goals are of course determined by the basic character of a civilisation. The emergence of European dominance must have also arisen from this factor of spirit/willingness. When Europe started its outward journey, it was not particularly advanced in education, science, technology, agriculture, etc., in comparison to other societies. But it was able in time to dominate the whole world, in keeping with its basic character, due to its spirit and will-power. It developed its institutions to fulfill this goal, and could consolidate the necessary resources later.

A similar spirit and will-power seemed to be present when Mahatma Gandhi started to harness the energies of our society. At that time, our self-image was at its lowest ebb; all our resources had been confiscated, resulting in widespread deprivation and helplessness. He created the necessary organisational framework, so that society could move towards the goals of *swaraj* and self-governance.

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Some scholars have suggested that Ram Mohan Roy, with his enthusiasm for westernisation—what Elphinstone called his *Firangee-ness*—was, in fact, coining a strategy of countering the dominance of the West. As far as he was concerned, it may well be so, and the idea needs deeper examination. But as events unfolded, what he may have intended got wholly ignored. Those who drew inspiration from him or his written words were led to leave their own idols in order to worship the varied idols of the West. Even such worship, done with understanding, could conceivably have been to the good of India, and thus of humanity. But it lacked understanding: caught in the softer phraseology and idiom of the West, it failed to get an inkling of the West's hard core, which had lasted for over two thousand years, and had acquired great sophistication during that period.

Coming as he did from late 19th century Bengal and nurtured and educated in urban Bengal's environment, it was natural that Vivekananda was often unable to link the strength and generosity of the ordinary people with their potential capacities. Not that he did not meet with great generosity in different parts of India, even from amongst the poorest Indian. Many such incidents in Rajasthan, in South India, etc., are graphically described in the various biographies written on him. Fired with a sense of great mission, and perhaps aware from an early age that he was not to live long, he naturally was in a great hurry. And so his conclusion that in India 'no appreciation of merit can yet be found, no financial strength and what is most lamentable of all, not a bit of practicality.' This led logically led to the belief that 'our well-being is impossible without men and money coming from the West.' If he had lived longer, say as long as Gandhiji lived, he perhaps might have come to realise that it is not only the educated and the prosperous to whom one has to address oneself. Given a certain sense of communion and an ability to communicate, in words or even in silence, with the poor and down-trodden, it was possible to generate courage, strength, practicality as well as resources from the deprived and downtrodden as well. Such communication with the deprived and the down-trodden as a consequence would have brought many of the educated and the prosperous to become participants in the new *Yagna*.

It was left to Mohandas Karamchand Gandhi to take up this new task. Coming as he did from the rugged and more enterprising people of Kathiawar, his links with the relatively uncorrupted past of his people was obviously stronger. Grounded in this past, at a more confident and youthful age, he could see through the life of the West more clearly and with fewer blinkers. If he had decided to continue living in Britain, or taken to a legal practice in Bombay, it is quite possible that even his judgement of the West would have got blurred as time passed. But life in white-dominated South Africa made his previous impressions of the West sharper, and his earlier conclusions confirmed.

It is possible that this acquaintance with the West in England and then in South Africa also made him understand the real nature of the working of western authoritarianism, in one garb or another. This understanding helped him to appreciate the plight and subjugation of the ordinary Western man of the late 19th century and early 20th century. Such reflections, as well as his long close contact with the ordinary and poor Indians settled in South Africa, helped him to forge the close links he had (from about 1916 onwards) with the deprived and downtrodden in practically every nook and corner of this vast land of Bharatvarsha.

The British rulers, from around 1909, or at least from 1918—when Gilbert Murray's article on Gandhiji appeared in the Hibbert journal—had realised that this man had understood what made the West tick. Such understanding implied that, given his organisational interests and skills, he not only had the potential of a great Indian following, but also an international appeal. His being acclaimed as the new Christ from New York in 1920, or 1921, and the warm and applauding reception he had from the unemployed men and women workers of Lancashire's textile industry, in 1931, seem to well illustrate this international appeal.

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Despite the fact that Franklin D. Roosevelt, in 1942, had wanted India to stay in the Western sphere of influence, or Clement Attlee, again in 1942, had thought that in spite of any exploitation, etc., which Britain might have practised in India, the British on the whole could be proud of their moral mission in India, and despite the admiration of many Indians, including Jawaharlal Nehru, for British institutions and civilisation, it was still possible till about May 1946 for India to have opted for a wholly different path. During the Indo-British negotiations, of April-June 1946, the British at the highest level had come out with a plan of wholly evacuating what they called 'Hindu India', i.e., India south of the Vindhyas, Rajasthan, most of Uttar Pradesh, Bihar, Orissa, etc. Leaving this 'Hindu India' to its own devices, they contemplated moving British personnel and authority to the Muslim dominated areas of the Punjab, Sindh, etc., in the west, and to Muslim areas of Bengal in the east.

But the plans became unnecessary because Indian nationalism became exhausted, and crumbled. The slightly amended British offer of eventual peaceful transfer was accepted instead. Neither Indian nationalism, nor even the British Viceroy in India, possibly had any inkling of the emergency British plan which was prepared by the British Chiefs of Staff Committee for the British Prime Minister and the British Cabinet Committee on India.

After the June 1946 compromise (or rather, surrender) by the Congress, it was more or less smooth sailing in Indo-British relationship. Even then Indian ideas and long term objectives could, to an extent, have been salvaged if the British, through Louis Mountbatten or at his suggestion, had not decided to rush the transfer of power. The plan seems to have been to take the Indians unawares: more or less in the same way as Gandhiji had taken the British unawares during 1919; and thereafter, to sweep them off their feet and leave them no time for reflection. Though earlier beaten by Gandhiji, the British knew the Indians well. They were well acquainted with Indian slowness in matters at those times when each moment counted; their inexperience of statecraft; their habit of opting for painless solutions; and their never refusing whatever was offered to them—even if the gift was of no earthly use to them ever. Incidentally, that Louis Mountbatten was the man to sort out the Indian situation, was mentioned to the British Government by Lady Willingdon, with 15 years of Indian experience, as early as 1943. My own impression is that the role of Louis Mountbatten, the last British pro-consul in India, is comparable to the role of Robert Clive, the first British pro-consul here. Both applied similar strategies. Both saw to it that the Indians had no time to deliberate or reflect on what needed to be done, either in the 1750s or in the late 1940s.

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How then do we get out of the present mess? How do we salvage whatever can be salvaged from our past? How do we undo the neglect and deliberate damage of the past 200 years? What is the conceptual framework and value system on which our long-term future has to be grounded? A century ago, such a task would naturally have been easier (as a similar task must have been for Japan). Even in the 1940's, when a large section of our people were mobilised for a promising future, the task would have been less difficult. Today, with our extensive dispiritedness, and far greater alienation and dis-orientation, the task is no longer so simple. Today it requires a far greater ingenuity alongwith prolonged perseverance.

Still, India today has certain advantages. First, British oppression as well as the struggle against it are matters of history; and harping on them is no longer the preoccupation of most Indians. Second, the experience of the past 40 years and the compulsion to look after our own affairs, however badly they may have been looked after till now, has made us understand state-craft better, has relatively brought us down to earth, and to an extent made us more familiar with the ways of the world at large. In the meanwhile, we have also produced and trained a fairly large number of young men and women in the various disciplines and professions . Their competence is comparable to those in other lands. A proportion of them are also questioning the usefulness of what they do with regard to India's present as well as future. They are raising basic issues about the applicability of the fundamental premises of the theories and practices of their know-how and its relevance to India's needs.

On the other hand, self-confidence, and the sense of national and personal dignity has yet to emerge in India. There is no doubt much personal ambition amongst a large number, and also the capacity and tenacity to individually make good in the Western sense. There are others, and their number is not too small, whose dedication is to serve the nation, the deprived, or some cause or the other despite personal discomfort. Yet what all of us seem to lack is an overview, and a sense of discrimination. Even personal ambition, not to mention devotion to the nation, the deprived etc., could have served far larger social as well as personal ends if we had achieved a sense of direction in terms of our complex totality and in relation to what could be feasible given our situation and the present-day world context.

Three years ago we did begin to talk of salvaging our heritage by taking steps like the cleaning of the Ganga, or of helping 80% or more of our people in terms of fuel and fodder by undertaking a plan of annually bringing 50 lakh hectares of waste land under fuel and fodder trees, or of starting educational institutions of excellence at least one in each district of India. But like other Indian older resolves, like the creation of neighbourhood schools in every habitat of India, or the provision of clean drinking water to each and every family, or the eradication of deprivation and poverty, the new resolves seem to have met a similar fate.

It is possible that the present Prime Minister who publicly promised the fast implementation of the three programmes really meant to carry out these plans. But instead, our rivers are drying up and being converted into sewage; our forests are not only greatly denuded but the new ones are being mainly planted to produce wood, bamboos and pulp for industries like paper, etc. or even to supply foreign markets. There is little sign either of the schools of excellence (where even the children of the deprived were to be admitted) or any talk whatsoever of the neighbourhood schools.

In two things only, have we had phenomenal rates of growth: first, in the number of TV sets possessed by the elite, and not so elite, Indian families; second, in the amount of noise through the blaring of microphones and loudspeakers in every nook and corner of India; the noise made by rickety motor transport or their terrible horns, the noise created at all hours of day and night by the aircrafts, or the indiscriminate multiplication of more and more noisy fire-crackers.

All this has resulted from unthinking planning, indifference or inability of governmental authority to provide proper direction in such matters. But it can be that what has happened is the result of deliberate decision as well as of neglect so that the vocal as well as not so vocal people can be dulled into a state of somnolence, or into utter helplessness, and thus allow a non-functioning crumbling state to keep postponing the necessary surgery to itself, a surgery which it has been in need of not only since 1947, but even during the latter part of British rule.

We the educated and the privileged are major culprits in allowing the continuation of such a state of affairs. The prosperous areas of the world are equally guilty: by patting our leaders and governments, and by annually offering aid of thousands of crores for this and that so that while the elite can have a relatively good time, they do not interact or establish any links with their people, and, India and its regions continue in a state of stagnancy and whatever new they produce is mostly not according to Indian choice and preference but for purposes which the aid-givers basically determine.

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Earlier on this evening I had mentioned major challenges. I shall elaborate on them here.

Firstly, we have been split into two societies which except that they live on the same land have little else in common. The split is not recent, in northern India it may date back to the days of Mughal dominance. But it is far more pronounced today. The two societies seem to live in almost separate worlds and seem to share almost nothing in common. We are not aiming at a society of a small number of citizens dominating a far larger number of slaves as in ancient Greece, or of serfs as in pre-modern Europe, or of whatever such subjugated persons may be called in countries of today's South America, we have to take steps to bridge this gap fast. The only way in which the task of bridging can be begun effectively is to have the two societies share the same common facilities in the field of school education, health services, water and energy supply, sanitation, and cultural activities and sports. This may initially imply a lowering of standards, or a decline in sophistication. Well, that has to be tolerated.

The present standards and sophistication of which we are so proud and cling to are just a surface phenomenon standing on a foundation of sand, without any roots or vitality. When the two societies have come nearer, have achieved communication and a meaningful dialogue, it is only then that standards of our choice can be created and sophistication will have a chance to be rooted in the Indian milieu. Sharing the standards of Mr Ronald Reagan, or the President of Harvard University or of Mr Mikhail Gorbachev or of the French and Scandinavian elite, or even of the relatively depressed British elite can only bring ruin to India.

The same applies to the Indian ruling class craze, it is not really a new craze, even in the 1920s and 1930s the elite Indians used to go to Vienna etc. for eye operations and the like to transport themselves at the slightest pretext to the medical centres of the USA or the USSR, or some other medically advanced land. It is a disgraceful act not only for those who indulge in it, but also for the Indian medical system. No harm will come to India, or even to such persons if they decided to live with their various ailments, as is done by the majority of India's citizens.

Though one has to be careful in the expenditure of public resources even to an extent in the spending of resources of one's own, the point that this practice of rushing abroad for medical or any such treatment must have a stop is to serve much larger Indian norms, and to prove one's commitment to things Indian. That even a peasant leader like the new Chief Minister of Haryana, lacks this sense is indeed sad.

The comment of our Prime Minister that even if one crore rupees have been spent on his recently concluded ten day international trip 'the benefits from the trip are well beyond its cost, many hundred folds perhaps' is indeed comic. In the context of the pattern of other state expenditures, it does not matter very much that one crore is spent on his trip. But the assurance that this expense has to result in a many hundred fold multiplication is symptomatic of the decay and disorientation of the mind of the Indian ruling elite. That the qualification required of an Indian Prime Minister, or of a Chief Minister, is his begging capacity, should in fact disqualify any such persons from such elective offices.

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The primary cause of the increasing distance in Indian society between the elite (around some two lakh families and certainly not more than 0.5% of India's population) and the rest of the Indian people is the dependence, sought and welcomed by us, on foreign resources and foreign models in practically every field. All this has to be abandoned the sooner the better. This dependence has not only made the elite and the institutions they control wholly irresponsible and unaccountable, but much more it has begun to determine and shape the use of Indian internal resources themselves.

In 1780 Warren Hastings had said that the British military training and arms, given through one treaty or another, to an Indian Rajya would only make that Rajya and its army weaker and much less mobile and not a bit stronger as was feared by his commander-in-chief. In the then Indian context it was a very sound judgement, and as the erosion in the circumstances and morale of India has mainly increased since then, this logic has even more validity today than it had at that time. The main culprit in this matter is the post-1947 Indian State and those who have been managing it at the highest level.

Those who are not directly associated with the state and pretend to distance themselves from it are, however, in a moral sense equally guilty. The voluntary bodies of practically all hues, the various dissident movements whether inspired by liberation theology, or some other current world fashion or by Western feminism, intellectuals of all kinds including those who now and then hop over abroad to collect funds and sympathy for this and that Indian calamity, real or imaginary, and even our countless religious sanyasins who glow amidst the admiration of their Western devotees are no less guilty in this matter. In fact their guilt is far more serious, as their claim to stand for morality and principles and yet joining in this game of dependence, has given legitimacy to such acts of the elite and governing structure.

The vitiated atmosphere this dependence has produced has affected even the serious efforts of those who feel committed to indigenous excellence. Even our illustrious *Sthapatis* seem to have become its prey. Instead of paying attention to the question that all new structures which are now being built in India, especially India's vastly increasing temples and other places of culture and learning, are basically founded on Indian concepts of design, beauty and the use of Indian materials, their obsession with mere excellence has made them abandon or forget this primary task. In fact they seem all too eager in getting involved in advising and guiding the building of Indian type of temples, etc., in the localities of the Western World. It is true that such outside association brings them and many others who in one way or the other are devoted to indigenousness, greater applause, even greater appreciation within India, than their work in India itself. But they have to realise that such applause and appreciation cuts the very roots of what they claim to stand for. The excellence they create is thus reduced to just museum-pieces or curiosities while the vast landscape of India gets enshrouded with ugliness and structures which not even conduce to physical comfort and convenience.

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Many steps have to be taken to enable us to pass over from the disoriented present into a future when the disorientation has disappeared and society as such has achieved a certain coherence. The steps to bridge this interim period have to be in the political, social as well as the technological fields.

While a small section of our people have been operating according to the modern western idiom in most public functioning the majority still function, to the extent that circumstances allow them, according to their old idiom, technological skills and social norms. As the westernised control most of the resources, the skills and tools of the majority are in a ramshackle and blunted state.

Yet we know that within the present arrangement neither the westernised nor the majority have the opportunity or the possibility of doing anything which can take us out of the present stalemate. The two unwittingly seem to be engaged in a game where one cancels out what the other attempts. The best will be to separate the two in some ingenious manner where the talents of both have the opportunity to find unobstructed expression and some of what they do has the possibility of opening new avenues in various spheres.

The best will be that centralised authority in Delhi as well as in the states of India withdraws most of its functioning from the localities, allows the localities to organise their life, as they will, within a broad civilisational frame, and which enables the centralised authority to shed away most of its unnecessary load and enables it to perform the tasks which it alone can perform. This problem of course needs much reflection and working out and the solutions of it may vary from area to area.

The other is to somehow enable the talents of the ordinary men and women to help in the building of the New India. Today our professionals are drawn from hardly 2% of our population. Steps need to be taken when this base of professional recruitment could be broadened at least 30-40 times, and in due course to 100% of India’s people. It is only then that we will acquire the necessary innovative skills not only in matters of science and technology, in health care, in sanitary arrangements, in more efficient and worthwhile use of resources, but also in the field of social and political organisation. An India in which all of its citizens, men as well as women, are unable to participate in the running of its public and social life will always be a weak and unhappy India and a prey to alien power or ideology.

The creation of a new India implies the end to such an unhappy state, and I presume that, despite our varied differences, that is what we all aspire for.

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All that has been done in India in the last 40 years need comprehensive reviews. The review of education by the Government of India can in fact serve as a model for all reviews which are undertaken. The reviews should relate both to internal areas of activity as well as of our relations with the world at large.

In the internal sphere the reviews should deal with all aspects of agriculture, irrigation plans (including big dams, etc.), the field of animal husbandry, horticulture, forests, (including the controversial social forestry), the production of various types of energy and the uses to which such energy is put, the problem of soil erosion and its causes and the steps that have been taken regarding it, the major causes of water scarcity over vast areas of India and the increasing drought conditions, the state of our textiles, steel and other consumer goods, and processed food product industries (produced according to indigenous technology as well as according to the modern Western), our medicare and health services, the sanitation system, the municipal services of our cities, towns and rural habitats, the design, aesthetics, and utility of our houses and public buildings, the state and usefulness of our public transport (road, rail or air) and the state of our physical, and cultural environment.

All new programmes, especially in terms of new construction or purchase of expensive equipment, need to be suspended till such reviews are complete and the nation has considered them and arrived at specific conclusions with regard to each review. Organisation and working of the law and order machinery, the judicial system from the Tehsil court to the Supreme Court, and of our defense systems have also to be reviewed similarly. That a state system which employs some three crore people, excluding the lakhs of those treated as casual labour, serves such little purpose, and is no earthly use to the vast majority of Indians, should shake us out of our lethargy and complacence.

Similar review has to be undertaken of our relations with the world at large, of our relative indifference to people in countries with whom we have long and historically shared closer civilizational and economic links, and how best we can get re-oriented in our relations with other people and areas both nearer to us, as well as distant. Blind imitation, and the sort of links we have had till now, have rather separated us from the community of nations instead of taking us nearer them. And our influence on them has been minimal.

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We must also apply our minds to the longer term problems of the restructuring of the future India—say an India which would have completely come into its own by the year 2020, and would by then be based on deep and sound foundations. For that we have to acquire a thorough understanding of our past, whether it is reflected through myths or through historically verifiable facts and equally acquire an adequate comprehension, from an Indian perspective, of other civilisations of the world. We have not only to adequately comprehend the modern world, i.e. the world of the past 300-400 years, but even more we have to have an understanding of its sources by getting to the roots of what Plato, Aristotle, Moses, Confucius, Lao-tse meant, or the assumptions of the Hebrew civilisation which forms the basis of Judaism, Christianity and Islam, and of the more ancient civilizations and people of Africa and the Americas. It is perhaps the ancient world view of the people of Africa and the Americas, and of those of East and South East Asia which is more akin to our own and has an immediate relevance to the problems of the violent world created since about the time of Columbus and Vasco da Gama.

Such an effort would provide us appropriate values (which to some degree may be somewhat different to the ancient values of India), theories, frameworks, etc., and help us structure a more lasting polity, and its various appurtenances, like aesthetics, science and technology, production methods and new economic arrangements.

For this, besides spirit/willingness, and intellect we need various other tools. For knowing our past alone we need to gather all our inscriptional and epigraphical, manuscript and other material on our heritage in suitable places of scholarship and decipher, classify and take steps to make all such materials available for study and reflection. A high Delhi authority estimates our stock of manuscripts at one crore to thirty crores. The manuscripts which are so far known, and are scattered over the world, are said to be listed in over 500 catalogues. We do not yet even know the total number so listed and are awaiting the arrival of appropriate computers when the number of manuscripts listed in these catalogues will be known. It is understood however that this number will be somewhere between 5-10 lakhs.

It is quite probable that when we actually look at each of these listed manuscripts perhaps half of them may no longer be in any state that any one could decipher anything substantial from them. That we have such manuscript wealth, even that it may number 30 crores, has mentioned for many many years. And that with all the resources and talent Delhi has, it does not even yet know the number or condition of the insignificantly small proportion which has been listed in the catalogues is indicative of either indifference or of Delhi's utter uselessness to India and India's current or civilisational needs.

But despite such indifference, neglect and waste we have to begin doing something now. This task cannot be performed by Delhi alone. It has to become the responsibility of duly constituted qualified, well endowed, and appropriate institutions in the various linguistic and cultural regions of India, one institution for each region. These institutions should serve as depositories of all manuscript wealth of the region, or of copies or microfilms of what is not obtainable in the original. In the same places we must also create centres of inscriptional and epigraphical material, as well as libraries which contain every printed and published item of the particular region, and the more important material in Sanskrit, or any other Indian or foreign language material regarding India's past and civilization. Such libraries should also have a selection of the more serious material on the world at large, particularly that which helps us to understand how other areas and civilizations tick. A country as vast as India does certainly require 10-20 such places like the British Library, or the Bodeleian in Oxford, or the Bibliotheque Nationale in Paris, or the Library of Congress in the USA, or similar repositories in Japan, China, USSR, Germany, or Rome.

Besides epigraphical, manuscript, and printed sources we need to pay attention to our ancient artifacts, the multiple tools and designs of our civilization. For this we need museums of such artifacts in every district of India which can also serve as places which help in acquainting the people of the locality, including the school and other students, with their heritage, and how we functioned in the past. The museums will also have to have suitable charts to explain matters, and display samples of the productions of these artifacts. Besides, of course we need to recognise and strengthen our existing regional and national museums, discard a large part of the 17th, 18th, 19th century

European knick-knacks which clutter some of them, and if need be create a few special well planned museums pertaining to the artifacts of other civilizations.

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Education in India has to be structured a-new. What we have inherited from the British needs to be scrapped, at least as a system, altogether. Education during the first 6-8 years must be the concern of the neighbourhood schools, except for such few children who have to be given well-defined special education for one professional specialisation or the other in residential institutions. The content of what is taught at every level has to have a review and wholly new text books, relevant to each and every linguistic or cultural area, must replace the text books which are used today.

Most education, at least till we have fully come into our own, should terminate by the ago of 16 or 18, after which it is only vocational or professional training which must be the rule. The present universities or colleges, in which the failure rate at B.A. and B.Sc. level is 50% and even many of those who pass are said to do so through questionable means, have really no imaginable role in today's India. It is not that the academics in them or their other supporting staff, have to be made unemployed. They can all be absorbed in other more useful tasks in various fields of Indian endeavour.

The current medical system must also be reorganised similarly. If the state wishes to have a major role in looking after the medical needs of its citizens we have to go for something like the post 1945 British National Health Service Plan. All medical practitioners must be absorbed in such a plan, and the expense of both treatment and medicine must be wholly borne by the State. The grandiose of course must go, and in a reasonable period of one or two decades, Indian medical practice must more and more rely on indigenous theory, methods and medicinal raw materials. Kidney replacement, or by-pass heart surgery are not the urgent need of India, and for most of such ailments there must be old Indian cures in the Siddha, the Ayurvedic, or the folk systems, which only need to be resurrected through appropriate research in ancient methods.

Our water supply systems, the sanitation systems, the plumbing in houses, the other western gadgetry, are, in the context of our resources, as well as our physical environment, a vast waste.

The same is true even of the few more esthetically and lavishly built five-star type of buildings. We certainly do not require them, and most of the foreigners who visit us have no use for them either. If there are a few foreigners, like heads of foreign states, etc., they could have been accommodated in places like the Viceregal palace (now called as Rashtrapati Bhavan), the innumerable governors' houses, etc.

One of these Governors' houses built at Nainital in the Himalayas occupies over 200 acres of scarce and precious Himalayan land, and the house itself, built in the style of a major British manor, about 100 years ago, has around 300 rooms counting the large bathrooms and the separate covered and partitioned verandahs. In the last 40 years, its annual occupation does not seem to have averaged more than 2-3 weeks. The sooner such buildings, including the five-star types, and the circuit houses, etc., get demolished or are put to some more plebeian uses, even for tying cattle, or using them as weaving sheds, etc., the better for our social health. It is distasteful that we are planning to construct yet another such building as a National Centre for Arts, in the name of Shrimati Indira Gandhi. If the arts did require a place in Delhi, the British Viceroy's house was the obvious place for them.

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The regaining of freedom, as we well know, has given rise to many dormant issues and conflicts in our society. It has also brought forth the manifestation of a variety of individual and social observances which we had assumed were gone forever. That we were wrong in such assumptions should now be clear. That freedom, or the relaxation of long imposed control, leads to the gradual relaxation and flowering of the body as well as the mind, has been long known to the wise, not only in India, but also elsewhere. The assertion of Welsh and Scottish cultural nationalism in Britain, of the French language culture in Canada, the assertions of the various linguistic and cultural regions even in the USSR, and the more recent assertion of the residual indigenous Americans and Blacks in the USA should have made us understand that the relaxation in control and oppression result in the re-manifestation of suppressed emotions and practices. As the suppression was far greater and prolonged in northern India, such reassertion has also been more pronounced there.

One manifestation of this reassertion has been the demand for the restoration of the honour and sanctity of the ancient sacred places, and the rebuilding of temples and other structures destroyed or decayed during the period of foreign dominance. Unless freedom is to be snatched away again there is no stoppage of such reassertion. The only thing that could be tried is that it happens in as reasonable and painless a manner as possible and that most of those who have somehow become worshippers of the status-quo are helped to appreciate the social necessity of the restoration of such honour and sense of sanctity.

It is possible that percolating of the sense of freedom amongst the peasantry and other rural folk may also in time lead to the rejection of most of the hideous and oppressive structures built by the British. Well, there is no way of ignoring such demands, and the India Gates, etc., may be the first casualty when such demands arise. The need is that we the elite give up our rigid and frozen postures, achieve some appreciation of social urges, and get prepared for change. The change, of which we have been such loud vocal worshippers, when it comes will have its own logic and not be governed by our preconceived notions of it.

IV

INDIA'S POLITY, ITS CHARACTERISTICS AND CURRENT PROBLEMS

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*India's Polity, its Characteristics and Current Problems *was written in early 1992 for a conference at Lisbon in April 1992. It was published in 1996 from Lisbon in a book titled:* The Origins of the Modern State in Europe, 13th to 18th Century: The Heritage of the Pre-industrial European State (pp. 137–163)*. This project on the 'State in Europe' was sponsored by the European Science Foundation.*

The *Mahabharatam*, a work of around 100,000 verses is the most ancient and major text on Indian polity. The *Mahabharatam*, besides serving as a chronicle of Indian memory and self-consciousness, also deals with the manner of the creation of the universe, of the division of the movement of the universe into specified periods, called the *yugas*, of the qualities of each of these *yugas*, and provides a detailed narrative of the *Dwapara*, the third of the four *yugas*, and gives an account of the great battle which occurs at the end of the *Dwapara*.

Geographically, the India of the *Mahabharatam* was more or less similar in extent to what is today identified as the Indian subcontinent. The *Mahabharatam* lists some one hundred major regions referred to as *janapadas* in it—around 38 in the north west; 20 in the centre, the area of the river Ganga; 10 in the east; 12 in the mountainous central area; 12 in the south; and 10 in the centre west.[1] It also suggests that each region was governed by some specific, identifiable, extended kinship community. Further, besides Sanskrit, various regions together, or separately, seem to have had a language or dialect of their own. Sanskrit seems to have been used on a pan-Indian scale, and even at the domestic cultural and social level in numerous homes in all parts of India.

The *Mahabharatam*, as also several other Indian texts mention that at some early stage there was little differentiation between beings, that man was in a state of bliss, and was devoid of passions. This state changed in time, passions arose, and then disorder, and men were then advised to have a king to govern them.[2] Around the same time they were given a *Veda*, and then agriculture, and then crafts. This changed state led to much greater differentiation and to the formation of the four *varnas* (classes), and subsequently, it may be assumed, to the formation of numerous communities based on conduct, occupation, and extended kinship. This movement in due time created the science of *Ayurveda* i.e. the science of medicine, and led to the sciences of *Jyotisha* (astronomy), *Silpa* (architecture), and to the arts of manufacture of things in general. Later the one *Veda* was divided into four, and subsequently into many more parts.

While the *Mahabharatam* advises men to have a king, the king is bound not only by *dharma*, custom and morality, but also is to govern with the assistance of a council of ministers. The number of ministers suggested is 37 and of these 4 were to be from the *Brahmanas*, 8 from the *Kshatriyas*, 21 from the *Vaisyas* (the peasant and trading communities of the age when the *Mahabharatam* was composed), 3 from the *Sudras* (the craftsmen of the time), and one, who was versed in every field of knowledge from the *Suta* (charioteer) community.[3] This representation possibly reflected the proportion or their weight or both in the polity of that time.

A concept which arises from the idea of the need of a king is that of *chakravartya*. A *chakravartin* is a sort of a superking to whom all others, in any major part of India or in the whole of it, pay homage and treat as their superior. The *chakravartin*, however, like the king, is not to interfere with the internal polity of any region and is expected to leave the governance of any region to its own people (the idea of *chakravartya* and its relation to other kings comes through much of Indian literature including the *Raghuvamsa* of Kalidasa, as also in some of the c. 1800 European writings on India).

While the *Mahabharatam* provides the basic ideas and texts on polity there are many other works, though of somewhat later date, which exclusively deal with polity or the science of political economy. The more outstanding of these is the *Arthasastra* of Kautilya of around 300 B.C. (There is much disagreement between indigenous Indian and western scholarship on the question of dating Indian events. According to the late P.V. Kane, the author of *The History of the Dharmasastras*, western scholars do not like any Indian dates to be considered prior to the dates of similar events in Europe. The Indians, and also the Chinese, for instance place Gautama Buddha sometime around the 18th century B.C., while European scholarship on India, which still dominates Indian scholarly circles, places the Buddha in the 6th century B.C. A similar disagreement exists on the dating of Kautilya's *Arthasastra*, and in fact on the dating of every single ancient Indian event and text.) The *Arthasastra* is a detailed work and its main theme, in contrast to the *Mahabharatam*, is to centralise all authority, and to bring the innumerable autonomous or sovereign regions, under the control of a superking. Thus for the *Arthasastra,* the idea of *Chakravartya* assumes a wholly different meaning. It is said and believed in India that the *Arthasastra* of Kautilya is relevant only in a period of great crisis, whereas the *Mahabharatam* is for all times. The dharmic status of the *Arthasastra* never seems to have been high in India.

It must be said that neither the *Mahabharatam* nor the *Arthasastra* of Kautilya, describe the actual reality on the ground in much detail. Detailed descriptions of the reality to an extent come through ancient Indian high literature, and much more so through inscriptions some of which go back at least to around 200 B.C. A more well known inscription dates back to the early 10th century A.D., and pertains to Uttaramerur, a prosperous town-cum-village, and a centre of learning, near the city of Madras in southern India where these inscriptions can still be seen. Uttaramerur had a *mahasabha* (council) of 42 members, and these constituted five committees. Each member had to meet rigorous qualifications, and was to be free of specified disabilities. The age of members was between 37 and 70 and they held such membership through a balloting device. Besides these *sabhas* and committees, 'there were in existence many other groups and corporations of a social, religious or economic character, each interested in looking after some definite local institution or function.'[4]

Later material seems to suggest that the concept of the community based on extended kinship and/or on shared locality, region, etc., is of very early origin in India and it will be correct to say that elements of this concept continue to be very powerful even in the India of today. While the number of extended kinship communities in individual regions, and even in some individual localities was perhaps fairly large (from about 10–50 in any region), the epic and other literary and historical evidence suggests that in a political and public sense, most individual regions were largely dominated by a specific community. Ordinarily any such dominant community in any region would broadly have been from amongst the peasantry. It is possible, and so suggested by ancient classical Indian literature, that the king ordinarily came from those who were broadly termed the *Kshatriyas*. Even when such practice actually obtained, the direction and objectives of kingly rule in ancient and later times seems to have been, as is also inferred from the *Mahabharatam* referred to above, in accordance with and dependent on the dominant community.

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Not much detailed work however has been done so far from the standpoint of these localities as well as communities. Their perspectives could have offered some graphic accounts of the Indian polity as it obtained through the centuries, with elements that are still to be found in most Indian localities and amongst most of India's kinship communities. While major indigenous Indian sources on the ground reality of India have yet to be located and explored, some fairly detailed material on such reality is available for certain areas for the latter part of the 18th century. One such area comprises a whole district—one of some 400 districts of India—around the City of Madras and is known as Chengalpattu. Besides making a survey, all the available local data for each of the two thousand and more localities of this district regarding land, population, institutional structures and arrangements, agricultural production etc., was collated by the British on the basis of local records and fresh enquiries during 1767–1774.

The district of Chengalpattu comprised of approximately 2200 localities around 1770.[5] A majority of the localities also had one or several sub-habitats situated at some distance from the main habitat. These localities were largely villages, where the main economic activity was agriculture and animal husbandry. But quite a number had very little agriculture. Some of these latter were towns and places of great learning and many of pilgrimage, while others were centres of weaving, fishing, oil manufacture, stone work and other crafts. The twin towns constituting Kanchipuram were an ancient centre of learning; and had been a centre of politics, administration, industry and commerce in Southern India till at least the 7th century A.D. Even in 1770, Kanchipuram was a major religious centre, as it is today as well. It was surrounded by numerous separate villages or townships of weavers, stone carvers, and of people engaged in various other crafts.

While around 2200 localities are listed in this 1770 survey, the main data available pertains to only 1910 localities. Amongst these, 1554 had human habitation, and 356 had no habitation at all around 1770. These 1554 localities had 62.529 houses, in addition to temples, shrines, centres of scholarship, resting places for travellers and the like. The number of temples and shrines in the district was around 3000 to 4000; some of their structures dated back to the 7th century A.D.

These 1910 localities together had a land area of 779.132 *kanis*, or about 400.000 hectares (a *kani* being slightly more than 0.5 hectare). Out of this total, 182.172 *kanis* was under irrigated cultivation; and 88.069 *kanis* under cultivation which solely depended upon rain. 130.790 *kanis* of land (around 17% of the total), was occupied by woods; and 14.055 *kanis* by orchards, groves, gardens, etc. Another 100.806 *kanis* was occupied by reservoirs of water for irrigation (known as *eri, maduvu, thangal* in Tamil); and 24.088 *kanis* was used for human habitats. The size of the land for a house and backyard ranged from a low of 0.06 *kanis* to a high of 1.75 *kanis*. Most houses were in the range of 0.2 *kanis* (i.e., about 1000 square meters). 4190 *kanis* were used as salt pans for making salt from sea water. 109.289 *kanis* of land though cultivable was not being cultivated around this time, and the rest 121.072 *kanis* was either under hills, and rain water rivers, or was treated as waste. The total area of this district where these 1910 localities were situated was perhaps 50% more than the 779.132 *kanis* mentioned above, as many of the localities till then would not have taken note of any land which lay between the boundary of one locality and that of another one more or less adjoining it.

The average land area of a locality comes out as 408 *kanis* (210 hectares). But 82 localities had less than 20 *kanis* of land, 143 had between 20–50 *kanis* each, and 248 between 50–100 *kanis* each. The agriculturally important localities seem to have been between 100–200 *kanis* (445 localities), 200–500 *kanis* (623 localities) and 500–1,000 *kanis* (262 localities). There were 124 localities which were between 1000–5000 *kanis* each, and two localities above 5000 *kanis* each.

Though the average number of houses for each of the 1554 inhabited localities is 40–41, there is very large variation in the number of houses within any given locality. 153 localities had no more than 5 houses each; 199 had 6–10 houses each; 324 had 11–20 houses each; and 242 had 21–30 houses each. Only 296 localities had between 31–50 houses; 118 between 51–70 houses; 96 between 71–100 houses; and 83 between 101–200 houses. 28 localities, many of these towns, had between 201–500 houses, and just 5 were above 500 houses each. These latter were Chinna Kanchipuram with 801 houses, Periya Kanchipuram with 593 houses, Pudupakkam with 726 houses, Pillaipalayam with 608 houses, and Uttaramerur, with its 10th century inscriptions on its polity, with 691 houses. This gradation in the size of localities by houses, or population, as it obtained in Chengalpattu seems to be no different from such gradation of localities there 200 years later today. Further, such gradation is not unique to Chengalpattu. It obtains in similar fashion in most regions of India.

The 225 localities with less than 50 *kanis* of land had little agriculture and a large number of them were industrial centres; many of them were also centres of banking, trade and commerce. Many localities, some 50–100 amongst the 1554, were pilgrimage centres also.

The number of households engaged in industrial and allied pursuits, or in banking, commerce and trade was around 15.000, nearly 23% of the total households of the district of Chengalpattu. In addition, around 40.000 households must have been spinning cotton yarn to provide yarn for the cloth which was woven by the weaver houses of the district.

Weavers living in 233 localities were the single largest industrial group with 4031 households. In 55 of these localities, they constituted 30% and more of the total houses, and in 34 they formed the majority. Some places had very large concentrations of weavers, especially in the neighbourhood of Kanchipuram. One place had 198 weaver houses out of a total of 290 houses. Five other localities, with a weaver majority, had 106 out of 129, 114 out of 191, 87 out of 116, 69 out of 133, and 62 out of 108 houses. Around 80 places had more than 10 weavers in each. There were also many localities in which the fishermen, the woodcutters, those working in stone, potters, and vegetable oil manufacturers together constituted 30% and more of the total houses of such localities. Even those concerned with banking, commerce, trade and shopkeeping together constituted 30% and more in 47 localities and in 11 of them they were more than 50%.

Such preponderance of a particular extended kinship group, or of an occupation group in 1770 Chengalpattu is even more marked in the case of groups mainly engaged in agriculture and in the case of the Brahmins. In around 1225 of the 1544 inhabited localities, one group or the other (and in a few two) constituted 30% or more of the total houses. And in around 460 localities out of these, one or the other specific group constituted the majority. The total houses for the main groups, the number of localities in which each group resided, and the number in which some of them formed 30% or more, or were the majority, are given in the annex at Table I. The total number of cattle in Chengalpattu is also given in the annex at Table II.

The total annual agricultural production for years 1762 to 1766 can be estimated on the basis of available data for 1458 of these localities. The amount of total production is estimated to be around 1.479.646 *kalams*, one *kalam* being roughly equal to 125 kilograms. This means an annual grain production of 184.955 tons. A fairly large proportion of the irrigated land, though the soil of Chengalpattu was only of medium fertility, gave high agricultural yields. In many localities the yield from paddy lands seem to have been of the order of 4–6 tons per hectare, i.e. equal to the yield of paddy in present day Japan.

Around 27% of this produce was put apart, at four different stages (from before threshing of the crop to after the final measurement of it), for the expenses of the locality and outside institutions with whom the localities were associated, as well as for payment to individuals who were part of the agricultural and community infrastructure. Many of these institutions and persons had also the land tax from certain lands assigned to them. The total amount of land so assigned in 1770 Chengalpattu was around 44.057 *kanis* of irrigated land and 22.684 *kanis* of rainfed land. It may also be inferred here that the rest of the economy, industry, commerce, shopkeeping, etc., (which might perhaps have accounted for about one-third to one half of the economic activity of the district) had made similar contributions to most such groups, institutions and functions. Table III in the annex gives the major allocation from the total agricultural produce for each category of institution or function in these 1.458 localities.

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The 1770 data establishes the existence not only of a high level of agricultural productivity, but also of diverse industrial activities and services in the society of Chengalpattu at that time. There are indications of a careful tending of the physical space and natural resources of the region as well. An elaborately worked out system of sharing of the produce of the region also seems to have ensured a fairly equitable distribution of economic and cultural prosperity among the various communities and occupational groups that inhabited the region. What concerns us here, however, are the details of the political arrangements through which the polity of Chengalpattu functioned in the late eighteenth century.

The polity seems to have operated on the basis of complex interactions between distinct and separate groups. Such distinctness at times is expressed in the separateness of their living space within a locality; in certain places separateness of the religious shrine to which a group was especially attached to (even when several such shrines may have been dedicated to the same gods); in separateness of their drinking water sources, smaller and larger tanks; and with regard to several other aspects. As an instance, there were localities of 100 to 200 houses in which there were as many as 10–12 temples or shrines of Ganesa, the god symbolising auspiciousness.

Thirupporur, one of the numerous temple towns near Madras, offers an interesting illustration of the principle of distinctness that formed the basis of organisation of the Chengalpattu polity. With its Kandaswami temple, Thirupporur was as major a centre of pilgrimage for people of the 18th century as it is even today. Substantial agricultural produce allocations were received by it for its expenses and maintenance from over 250 localities of Chengalpattu. This temple town had over 20 *mathams,* each of which was related to a specific community or to a group of localities. A *matham* is a place of worship, which also arranges for the stay of the pilgrims, and for the performance of tasks associated with pilgrimage. *Mathams* were also places where spiritual and higher learning were imparted. They almost certainly had a savant or a scholar looking after them.

The large numbers of *mathams*, each linked to a specific community or a group of localities, indicate that while the various groups participating in the Chengalpattu polity all came to worship at the same temple of Kandaswami at Thirupporur, yet each such group preferred to stay separately and be culturally interlinked with a *distinct matham*.

The people and localities of 1770 Chengalpattu, however, seem to have concerned themselves with many more things than the distinctiveness of groups, their living spaces, shrines, water sources, etc. While at one level, separate requirements were attended to, at another level the groups seem to have got together to operate in the public domain of a locality or group of localities. The detailed budgetary allocations made for numerous functions, including irrigation, administration, learning and scholarship, police and militia are illustrative of this joint concern. These functions and institutions, however, were often looked after by specific and exclusive groups. The data mention almost a hundred groups, functionaries, and institutions that had a share in the budgetary allocations of one locality or the other. And most localities made such allocations for scores of functionaries and institutions. The arrangements described above, the separateness of groups and communities and their interlinking as well as the interlinking of localities were not unique to Chengalpattu, and seem to have obtained in most other regions and localities of India till around A.D. 1800.

One infers from such data that India's polity was constituted in a manner peculiar to India or to areas around it. The building blocks of this polity evidently are not individuals but distinct and exclusive groups, who at one point emphasise their separateness almost to the point of sovereignty. Having established their separateness, such groups within every locality come together to form the local polity. The polity then functions through elaborate systems of sharing of resources and responsibilities. It may be mentioned that, in spite of the attitudes of sovereign exclusiveness which these groups seem to exhibit, the nature of the groupings and the occupational specialisation ensured that none of them could have made the polity or the economy functional standing alone. Functioning in any locality or larger region required the coming together of several such groups—at least, seven or eight of them. Working out the arrangements of interaction between such exclusive sovereign groups and between locality and adjoining localities then becomes the major aspect of political functioning.

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The polity described above was perhaps relatively weak at the time of the above compilation of Chengalpattu data. Possibly the linkages between the localities themselves had become considerably eroded by this time. The factors which still kept them linked in some manner seem to have been the permeating Indian *dharmic* view of life: the great gods and their majestic temples; the infrastructure both local as well as regional which in various ways linked them to their institutions and persons who performed the numerous functions which were needed by them all; the scholarly institutions whom they honoured in their various ways; and their militias which in southern India were commanded by persons known as *palayakkarans*. These links had weakened during the centuries. Such weakening was far more pronounced in northern, western and parts of eastern India large areas of which had been over-run since about 1200 by invaders professing Islam. These invasions had led to prolonged plunder and social chaos. Much more so, they had led to the breakdown of links between localities, between localities and a region, and between regions. As a result, the idea of *Chakravartya* protecting and supporting Indian civilization had largely been lost.

Such a situation had its impact on southern India too. Not only parts of southern India had to face one or the other alien Islamic invasion especially in the 14th and 17th centuries, but the possibility of their becoming more frequent reduced the Indian sense of balance and contentedness, and led to a sense of insecurity and impending danger. Such a mental state also caused varying symptoms of psychological and political emergency. Thus, even in the south, the links between localities and regions lost much of their virtue and strength. But by about

1690, the Islamic rule of Delhi, and thus of its *subedars*, governors and *nabobs* in the several regions, began to collapse, largely because of the play of time, and possibly also because of the historical burden of conquest and oppression such rule had got saddled with along with its inability to integrate itself with the Indian culture. And so from about 1690, perhaps somewhat earlier in Maharashtra, in most regions of India there was an assertion of the indigenous which had all the possibility of throwing away the 500 year old alien Islamic oppression and bringing forth a new resurgence of the indigenous. However in these five hundred years India had got so involved within itself that it had lost track of world events, lost touch even with its neighbours and did not realise that to be successful it had to move and rebuild itself at a much faster pace. Its indigenous rulers and scholars and the regional communities, despite the havoc caused by the Portuguese and other Europeans in parts of India in the early 16th century, seem to have been unable to derive any lessons from this experience. The result was that when India started to experience the full force of European conquest and expansion from around 1750, its rulers and people found themselves largely unprepared.

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It is not, however, as if the British and earlier the French, the Dutch and the Portuguese, had an easy time in India. From the beginning, there was constant armed as well as unarmed resistance to their conquering mission, dominance, and rule. The first 110 years, from 1748—when the extended British conquest began in the region around Madras—to 1858, were like a long drawn hundred years war between the people of India and Britain (the latter supported by the military men from several Germanic countries). The climate of India was not hospitable to European men. In order to overcome that, the British began to establish military stations, garrisons and towns in the Himalayas and other high mountains of India.

Unarmed resistance was resorted to not only by the Indian peasantry, but also by city and town people in most parts of India[6] till they were wholly exhausted (especially in southern and eastern India), by about 1840. Then came the great battle of 1857–1858 between India and Britain, by the end of which India had conclusively lost.

But even their conclusive victory had to be paid for by the British. From 1780 to 1857, the British had believed that if they had one European soldier to 4 or at the most 6 Indian soldiers, all officered by Europeans, they would be militarily safe in India. 1857–1858 changed this view altogether. From 1858 till about 1910, Britain decided to have one British soldier to every two Indian soldiers in the British Indian armies. While the actual number of Indians in the army was drastically reduced in 1858, it still meant that a British force of around 100,000 soldiers had to be constantly kept in India for the next 50 years and more. It may be of interest to mention here that in 1946, the British again felt that they could only maintain their control of India with an overwhelming display of military power as neither any major sector of the Indian people nor the Indian military personnel could be depended upon. But at this time they found that after their losses in the 1939–45 war, they no longer commanded the number of personnel which was required. A different solution was, however, soon found as the Indian National Congress—a somewhat exhausted and ageing leadership—agreed to a compromise on the question of Indian independence, and the manner of the transfer of power to Indian hands.[7]

After the British terror of 1857–58, for the next 10–15 years the Indians seem to have been wholly quiet, trying to heal their extensive and deep wounds. By slow degrees, however, unrest began to emerge again. One of its major manifestations was in the 1880s and early 1890s, in the shape of the anti-cow killing movement which stirred up high emotion and created an uncontrollable ferment, especially in northern, central and western India. The then British Viceroy thought that its intensity, extent and explosive power was as high as that of the events of 1857–1858.[8] Queen Victoria advised the Viceroy that he must realise that this movement was aimed at them, and not at the Muslims.[9]

Most Indian Muslims felt so too and Indian Muslims in various places met and came to the conclusion that as the Hindus did not like the killing of cows, the Muslims by themselves should decide to abandon such killing.[10] Ultimately, from 1894 onwards, the movement got diverted to clashes between Muslims and Hindus. Thereafter, it ceased to be a major threat to British power.

But the British—at least in India—had always played with several cards, apparently each of them opposed to the others. In 1942, at the time the British were engaged in the armed suppression of the Quit India movement, a leader of the scheduled castes submitted a memorandum to the British and offered his support to them. The British Secretary of State for India had then written to the British Viceroy, that till then the British had one card, i.e. the Muslim card against Indian nationalism; but now, after this memorandum, they had a second card in the scheduled castes.[11]

The old game of acquiring such cards began to be played around the 1870s in a new way. Scholarship came to the aid of authority and began to create new images for the Indian Muslims, for the Sikhs, and also for some of the Hindu *jatis*. Great Christian sympathy began to be displayed, especially for the *pariars* of the Tamil areas, and other untouchable groups of Hindu society in various parts of India. In fact groups which had been historically opposed to one another like the *pariars* and the *chakkiliars* of the Tamil areas began to be clubbed together initially under the title *pariars,* and later under the more extended term the scheduled castes. (The *pariars* in south India had belonged to what were known as the *Valangai*—right hand—castes and were their guardsmen; while the *chakkiliars* had belonged to the opposite *Idangai*—left hand—castes group, and had been the guardsmen for them). The process in due time led to the inclusion of many *jatis* in the 'untouchable' category. Till at least the mid-nineteenth century, these had not been treated or labelled as such by Indian society.

Another British card was to placate the increasing number of westernised Indians: to divert their discontent and their sense of discrimination into safer channels. The purpose was to detach all possible such groups from the larger indigenous Indian polity and thus to reduce the possibility of another 1857–1858. It was then felt that one such safe channel could be a conservative-cum-moderate political platform where the grievances of the vocal westernised could be aired more publicly and thus reduce the chances of their aligning themselves with their own people. This led to the formation of the Indian National Congress under the patronage of liberal Englishmen and loyal and prosperous Indian subjects. This new card seems to have worked effectively for quite sometime and did help separate most of the westernised Indians from their own people. Most of the former only wished to be treated as English gentry.

However, the innocuous Indian National Congress of the 1880s became a great movement of the Indian people for the achievement of their freedom from 1920 onwards. Its new constitution drafted, explained and introduced by Mahatma Gandhi provided for the enrolment of every Indian, who believed in its new objective, as its member; the individual members in a locality constituting the Congress committee at the village, town, or city level; and these latter in their turn constituting Congress committees at the provincial and national levels.[12] Within two years of this historical transformation, the Indian Congress had 5,000,000 members, and its annual budget had multiplied a hundredfold from around Rs.30,000 till 1920 to over Rs.3,000,000 from 1922 onwards. The 1920 constitution of the

Congress had also provided for the constitution of provinces based on commonality of language. It had demarcated India into 21 provinces based on this principle.

The 1920 constitution also gave the National Congress and India a new objective: the attainment of '*Swarajya* (complete independence) by the people of India by all legitimate and peaceful means.'[13] For the attainment of this objective, various nationwide non-cooperation and civil disobedience movements were launched under the leadership of Mahatma Gandhi from 1920 to 1942. Finally in 1946, an agreement was arrived at between Britain and India to facilitate the early achievement of freedom by India. The process was not easy, however. It implied that the Indian freedom movement abandon or dilute many of its earlier aims. The result was that freedom got converted largely into a transfer of power, and India also got partitioned into two sovereign nation states.

As the free India needed a new constitutional structure, a Constituent Assembly was created in the later part of 1946 by means of indirect elections by the provinces and what were known as Indian states to frame a Constitution for the free India. This Constitution was completed in November 1949, and came into operation on January 26, 1950.

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Since 1930 the people of India had been pledging and dedicating themselves on each January 26 to the achievement of complete independence. The pledge drafted by Mahatma Gandhi had stated:

> We believe that it is the inalienable right of the Indian people, as of any other people, to have freedom and to enjoy the fruits of their toil and have the necessities of life, so that they may have full opportunities of growth. We believe also that if any government deprives a people of these rights and oppresses them, the people have a further right to alter it or to abolish it. The British Government in India has not only deprived the Indian people of their freedom, but has based itself on the exploitation of the masses, and has ruined India economically, politically, culturally and spiritually. We believe therefore that India must sever the British connection and attain *Purna Swaraj* or complete independence.[14]

The period 1946–1949, during which the Constitution was being made, was a very demanding and exacting time for the people of India as well as for their government. The British move and decision to split India had led to fairly widespread bloodshed, and a movement between the split parts, largely in the north, of some 15 million people, who had to trek hundreds of miles from one part to the other. In the process, mostly during 1947, perhaps one million persons lost their lives. Like newly established Pakistan, India was saddled with the problem of transporting, sheltering, feeding and settling the millions who had been uprooted by the partition decision. In such a state, the making of the Constitution excited little public debate and interest. It seems to have been treated by India's main leaders, especially after Mahatma Gandhi's death, as something which could be left to lawyers and to those with legal expertise and administrative experience.

Yet, in certain matters, the discussions in the Constituent Assembly gave rise to much misgiving and deep concern. One of these matters related to the place of the locality—villages, towns, cities in the new polity.[15] As mentioned above, the 1920 constitution of the Indian Congress was based on the principle that individual members in a locality will join together to form the Congress committee of the locality; the localities in a region will together form the regional committee; the regional committees in a province will form the provincial committee; and all these together will constitute the national Congress.

At the very beginning of the proceedings of the Constituent Assembly, around January 1947, a member had reminded the Assembly of the ideas which had been generated in the previous 25 years (to an extent embodied in the Independence pledge of January 1930) and had quoted Mahatma Gandhi as saying: 'The centre of power now is in New Delhi, or in Calcutta and Bombay, in the big cities. I would have it distributed among the seven hundred thousand villages of India.' According to him, Mahatma Gandhi had also said that 'there will then be voluntary cooperation between these seven hundred thousand units', and that such 'cooperation will produce real freedom and a new order.'[16]

The making of the Constitution was entrusted to a senior Indian member of the British officer corps who was appointed as the Constitutional Adviser. A committee of seven members was formed, six of whom had been leading legal and administrative luminaries under the British administration. The committee was constituted on August 29, 1947. It was given the task of scrutinising the draft which emerged from the Adviser's labour.[17] This drafting and scrutiny evidently took a whole year. When the draft of the Constitution was placed before the Constituent Assembly, there was no mention in it of villages, towns, cities or even of districts. The Law Minister who placed it before the Assembly was in fact proud that no such mention had been made in the draft. In his speech, he observed:

> 'Another criticism against the Draft Constitution is that no part of it represents the ancient polity of India. It is said that the new Constitution could have been drafted on the entire ancient Hindu model of a State and that instead of incorporating Western theories the new Constitution should have been raised and built upon village panchayats and district panchayats.'

And he added: 'The love of the intellectual Indian for the village community is of course infinite if not pathetic.' Quoting an early 19th century British authority he felt that no one could feel any pride in them. Then he added:

> That they have survived through all vicissitudes may be a fact. But mere survival has no value. The question is on what plane they have survived. Surely on a low, on a selfish level. I hold that these village republics have been the ruination of India... What is the village but a sink of localism, a den of ignorance, narrow mindedness and communalism? I am glad that the Draft Constitution has discarded the village and adopted the individual as its unit.[18]

The Law Minister's observations produced great anger and much anguish. Of the 32 members who spoke in the Constituent Assembly at this stage, only three came to his defence. The others, including several past, contemporary and future prime ministers of Indian provinces, felt greatly hurt and betrayed. A member felt that the 'Constitution as a whole, instead of being evolved from our life and reared from the bottom upwards is being imported from outside and built from above downwards.'[19] Another member said that 'in the whole Draft Constitution we see no trace of Congress outlook, no trace of Gandhian social and political outlook. I feel the whole Constitution lacks in Congress ideal and Congress ideology.' Answering the point that 'the villages have been the ruination of India,' he said, 'our villages have been starved; our villages have been strangled deliberately by the foreign governments; and the townspeople have played a willing tool in this ignoble task.'[20] A very senior and prominent member from the south, prime minister of the Madras Presidency around 1947–1948 stated:

> I was hoping, having seen the Preamble that everything would follow in regular course and bring out a Constitution that will give food and cloth to the millions of our people and also give education and protection to all the people of the land. But to the utter disappointment of myself and some of us who think with me, this Draft Constitution has drifted from point to point until at last it has become very difficult for us to understand where we are, where the country is, where the people are, what is it that they are going to derive out of this Constitution when it is put on the statute book.[21]

Most members who spoke found the Draft Constitution 'totally foreign'.[22] A member even implied that when most of India was fighting for freedom, the Law Minister and his colleagues 'were applying grease on the backs of the British.'[23]

These discussions, however, got side-tracked. A modification was brought in to calm the anger and anguish of the members, and it was decided that another article should be inserted in the Constitution stating that, 'The state should take steps to organise village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.'[24] This, though welcome, produced little joy. Many members felt unhappy with the Constitution to the last. But in the process some had realised that such an unsatisfactory state was the result of lack of vigilance on their part.[25] It was said that the work of constitution making was left to those who were not 'in sympathy with the freedom movement', that therefore 'they naturally brought their outlook and knowledge of things into the Constitution making'; and that this was 'not the kind of psychology or the knowledge' that the country needed. The same member further observed that, 'we wanted the music of *Veena* and *Sitar*, but here we have the music of an English band', and this 'was because our Constitution makers were educated that way.'[26] Another member wondered that if 'the Constitutional Adviser could go to Ireland, Switzerland or America to find out how the people of those countries are running their governmental systems, could you not find a single person in this country who was well read in the political lore of this country who could have told you that this country has also something to contribute; that there was political philosophy in this country which had permeated the entire being of the people of this country and which could be used beneficially in preparing a Constitution, for India.'[27] Another member felt that after adopting the Constitution 'the picture from the villager's point of view is dull and dead. I cannot give any argument to convince the villager that from 26th January 1950 his lot will be better.'[28] According to another it appeared that 'under this constitution, there will be two classes, a new ruling class at the helm of affairs and at the bottom there will be the common man exercising a vote once in five years.'[29] Finally, many had to be satisfied with the feeling that the constitution they had adopted was 'only a stop-gap arrangement',[30] and another said that in due time they 'will have to change this constitution.'[31]

The adoption of the article on *Panchayats* led to new statutory legislations to devolve some authority and resources on villages, sub-districts, and districts. However, several such attempts at decentralisation had already been adopted by the British since about 1884. The major British experiment in decentralisation of authority and resources to district bodies and bodies at the sub-district and locality level had been conducted during the 1920's. At that time, these bodies were permitted to make their own rules, create their own procedure, and could hire, direct and dispense with the persons who worked for them, including high technical personnel. The resources put at their disposal within a province, or the larger British presidencies (Bengal, Bombay and Madras) was also substantial. In the Madras Presidency, it amounted to around 25% of the presidency budget.

But within a few years the experiment had come to a dead end. The reason was that the centralised system established by the British in India could not tolerate any departure from the line laid down by central authority. The experiment collapsed by 1930.

There were, however, other attempts in many provinces at decentralisation between 1937 and 1949, and again during 1950–1956, and from 1957 to around 1966. These latter attempts were much less ambitious than the one in the 1920s. In them far less authority and resources were provided to the decentralised bodies. Even then they again reached similar dead ends. Whenever any such bodies began to function at all, their manner of handling tasks and their worldview began to seem intolerable to the directing central authority. The consequence was that each time they were reduced to low level, low-functional branches or offices of the directing authorities at provincial or state capitals.[32]

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Within ten years of the adoption of the Constitution, disquiet about it had grown apace. The process of direct elections, etc. at every level seem to have led to widespread factionalism in most parts of India, and further disrupted localities and regional societies. A major expression to it was given by Jayaprakash Narayan in his *A Plea for Reconstruction of Indian Polity*, published and circulated privately in 1959.[33] In it, Narayan, a prominent freedom fighter and later an eminent Indian leader and statesman, spelled out the nature of the disruption which was occurring. He suggested recourse to a several-tiered polity from the base upwards in which direct elections were to take place only for the level of the locality, the other tiers being elected by the elected institutions at the locality and other levels.

Three years later, he commented on the afore-mentioned debate in the Constituent Assembly. As these comments seem to reflect the Indian approach and view on the subject, some part of what he wrote is reproduced here:

> As I look at it, there are two entirely different concepts of society involved here. Even though not clearly expressed, this is implicit throughout Gandhiji's discussion on the subject. One concept is that put forward by Dr. Ambedkar, and accepted as the basis of the Constitution, namely, the atomised and inorganic view of society. It is this view that governs political theory and practice in the West today. The most important reason for that is that Western society itself has become, as a result or a certain form or industrialisation and economic order, an atomised mass society. Political democracy is reduced to counting of heads. It is further natural in these circumstances for political parties, built around competing power-groups, to be formed, leading to the establishment, not of government by people, but of government by party: in other words, by one or another power-group.
>
> The other is the organic or communitarian view. This view treats of man not as a particle of sand in an inorganic heap, but as a living cell in a larger organic entity. It is natural that in this view the emphasis should be laid more on responsibility than on right, just as in the inorganic view it is natural that it should be the opposite. When the individual lives in community with others, his rights flow from his responsibilities. It cannot be otherwise. That is why, in Gandhiji's sociological thought, the emphasis is always laid upon responsibility.[34]

It may be useful to recollect here Mahatma Gandhi's thinking on this subject, as he expressed it in 1931 in London at a British invited conference on India. He stated:

> We must remember that we have 700.000 villages. I believe that the 700.000 includes the Princes' India also. I speak subject to correction. We have perhaps 500.000 or a little more in popular India. We may have these 500.000 units. Each unit would elect its own representative, and these representatives would be the electorate that would elect, if you will, representatives to the Central or the Federal legislature. I have simply given you an outline of the scheme. It can be filled in if it commends itself to your attention. If we arc going to have adult suffrage, I am afraid that we shall have to fall back upon a scheme somewhat after the style that I have suggested to you. Wherever it has been working, I can only give you my evidence that it has worked with excellent results, and there has been no difficulty in establishing contact through these representatives with the humblest villager.[35]

When he said 'that it has worked with excellent results', what Gandhiji had most in view was the 1920 constitution of the Indian National Congress and the working of the Congress under the provisions of that constitution.

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Some of those close to Mahatma Gandhi, wondering at the transformation wrought in India since 1917 from a state of fearfulness to fearlessness and from despair to hope,[36] used to ask him what was it that he did to bring about such transformation. His reply was that he really did nothing more than articulate the feelings, ideas and preferences of Indian society and India's people, which they themselves had been unable for decades to so articulate. Earlier on, it might have seemed that he was being unduly modest; while in retrospect, it appears that this is in fact was what had happened. The shock and manner of the British conquest and the prolonged terror which accompanied it had not only disrupted Indian society, its localities, the interrelationships between its numerous localities as well as extended kinship groups; but worse yet, made them dumb. The greatest social contribution that Gandhiji seems to have made was to restore his society's voice, and by his example, helped to make it and its varied constituents fearless and articulate. In a way, what the members of the Constituent Assembly were trying to express, or what Jayaprakash Narayan felt regarding the basis of Indian polity was an inheritance they had derived from Mahatma Gandhi. But in another sense, the concern they felt seems to have been of very ancient origin, and was integral to the world view of Indian civilization; and to the way this civilization approached life, and thought that such life should be organised and constituted.

With the weakening of the locality structure and the interrelationships amongst localities which made them whole and functional, the interrelationship of the various extended kinship groups came under heavy pressure as well. Further, with the breakdown of Indian political and administrative institutions, men from the more scholarly and more literate groups allowed themselves to be coopted into the system created by the British. Though their cooptation till the early 20th century was mainly to fill the subordinate positions in the governing and coercive apparatus, later they became the immediate instruments of terrorising their own people. Within a few decades, they and the communities they came from, became not only objects of awe but also of relative hatred. Such a situation seems to have prevailed in practically all parts of India by the 1860s.

However, events, like those of 1857–1858, and the passing of time changed many equations. By the 1870s, the British, as mentioned earlier, began to establish new alliances. The disruption and injustice which had been heaped upon Indian society, the way most of its people had been pauperised and degraded by British rule and law, also became more apparent to many more people. Even the Maharaja of the Southern Indian state of Mysore seems to have felt the horror of the inequity which had arisen around him, and which had deprived most groups in the Mysore state, of honour, dignity and well being by the 1880s. His solution was that the personnel of the government, to begin with at the more subordinate levels, instead of being recruited only from one or two communities should from then on be taken from all major communities in proportion to their number in the population of Mysore.[37]

This solution, albeit within the framework of the British system, began to be adopted in most parts of southern India from the early years of the 20th century. A major share of recruitment to employment under government, or government-controlled institutions, at more subordinate levels, began to be made on the basis of the numerical strength of the respective communities in the total population of a region, or province. While little could be done through this method to relink communities, or even to wholly atomise them to create mass society, such steps did offer individual benefits to some of those who had been totally excluded from public affairs during the first century of British rule.

The Constitution of free India also gave attention to this matter of social inequity and provided for its correction by including two articles on it in the Constitution. These articles—16(4) and 46—provide for reservation in education and public employment for the weaker sections, backward classes and the scheduled castes and scheduled tribes.

A few years later, these articles of the Constitution led to the appointment of a Backward Classes Commission at the pan-India-level. Thereafter similar Commissions were appointed in several states of India; and by 1980, the idea of some proportionate representation based on caste or community in recruitment to governmental employment, had become quite respectable and legitimate in most parts of India and in practically all sectors of public employment.

But just as decentralisation of administration to district and sub-district and locality levels did not succeed in rejuvenating localities, this device of recruitment to public employment on the basis of the relative numerical strength of the community also did not rejuvenate communities; or in any sense lead to the restoration of intercommunity cooperation and friendliness. By the very nature of the British-given structures and framework, both were, from the start, doomed to failure.

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The British conquest of India, and the imposition of British law, institutions, concepts, theories, etc., (no doubt largely of late 18th-early 19th century British origin, and thoroughly antiquated by about 1900), should have, according to European experience and theory, wholly atomised Indian society by the beginning of the 20th century, or at least by the time the British quit India in 1947. However that did not happen to any appreciable extent. But this was not for any lack of trying. All possible efforts, physical and intellectual, were made to smash or completely subordinate Indian society. In addition, varied efforts were also made to ally and incorporate it within the European world view so that it could be governed and administered with a minimum of expense and violence. Three such efforts were through the advocacy and promotion of Christianity, westernisation and indology.

The christianisation of India was approved and advocated by the British House of Commons as early as 1813. Westernisation of India became a major programme by the 1830s. Indology, and the theory of ancient kinship between Indian and European languages, and by implication between Indians and Europeans has continued to be hawked in the corridors of academia as well as in international politics, since about the 1780s. One of the ideas originating from indological theory was even shared by Roosevelt, the President of the United States of America when he advised the British in August 1942 that 'we should try to think of some arrangement by which India found its place in the European and American, i.e. western orbit rather than the Asiatic.' He partly justified this advice on the view that 'racially the mass of the Indians were really the cousins of us Westerners.'[38]

While these efforts led to further pauperisation, disorientation and depression, they failed to generate any major atomisation of India's communities and extended kinship groups. Even those who have converted to Christianity from about 1800 (similarly to those who converted to Islam from about 1200 A.D.) did not get individualised or reduced to nuclear families: their attachment to extended kinship seems to be of the same order as obtaining amongst the larger Hindu society.

If Indian Society had got atomised like that of Western Europe, it perhaps could have followed in the West European or the North American path. Atomisation, for mere survival, if for no other reason, according to the Western model, would have generated drive, the kind of motivation, which Americans are supposed to acquire in their early childhood, and enterprise and inventiveness at least amongst a section of the Indian people. The compulsions of the drive and enterprise then could have provided new structures and institutions to the Indian people. But this has not happened. The reason may be that European assumptions and experience, on the basis of which Indian political and public institutions have been structured, does not necessarily have any universal validity. That things happened in a certain manner in Europe need not imply that this sequence gets repeated everywhere else too. That European civilization happens to be dominant in the world for the last 400–500 years, and has been able to put its stamp on a worldwide scale in itself has little uniqueness.

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The European historical experience and thus the European ideas of the State seem to be alien to India. It may be that there are certain other areas of the world, perhaps like Japan where it is said that feudalism of the European kind did prevail at some stage, which have had similar historical experience and institutions as Europe is known to have had. But India does not seem to be one of such areas. Here State formation of the European type does not seem to have taken place, despite the centralisation theories of the *Arthasastra* of Kautilya, and texts of that type. Kingship here, it seems, did not lead to the formation of a State. The king seems to have remained as a constituent of society; and, more often than not, was no more than an elevated member of the numerically dominant extended kinship community. It is for such a reason that there were no hard and fast boundaries, except what the Himalayas, the great rivers, and the oceans provided. Localities, regions, *janapadas* seem to have gradually merged into one another. They ordinarily had no distinct fixed boundaries which marked where one *janapada* ended and another began.

It may be mentioned here that India, unlike Europe and post-Columbus America, is not an area of immigrants. Though India has experienced numerous foreign invasions, mostly minor but some major, India really is not a conquered civilization (as Europe perhaps is, and as post-Columbus America became soon after 1492, and much more during the 19th century). The Indian people, therefore, established very different arrangements to run their social, economic, cultural and religious life. It is not that there were no fights, battles, or wars between locality and locality, region and region, or one extended kinship group and another extended kinship group. There obviously also was movement of groups from one region to another, or over long distances: some groups from southern India going and settling in the Himalayas; or many Brahmins from Kanyakubja in Uttar Pradesh going over 700 years ago and settling in the region of the temple of Jagannath at Puri on the shore of the Bay of Bengal. (Kanyakubja was a major ancient centre of learning and also the capital of the celebrated king Harsha of the 7th century A.D.) It is mentioned in the 18th century data on the district of Chengalpattu that sometime in the 17th century a warrior leader, or perhaps a small king, or banker, from Ayodhya in Uttar Pradesh was journeying with his family deity to the temple of Rameshwaram at the southern tip of India with an armed guard of around 200. When he reached the area of Chengalpattu after a journey of one thousand miles and more, he came across some plundering group which had for sometime been harassing the people of the region. At the request of the people of Chengalpattu he is said to have vanquished this group. But thereafter the people of the Chengalpattu region would not let this man from Uttar Pradesh leave. They wanted him to settle in their region and be one of them. He ultimately agreed. He and his descendants thereafter were incorporated in the local structure as *palayakkarans* i.e., militia commanders or small kings.

Numerous similar instances can be found in Indian literature or chronicles, or amongst the innumerable inscriptions which are found in most regions of India.

Despite such migrations, it seems that most of India's present people as well as their political heads, kings, *palayakkarans,* etc., have lived in the same localities or in their neighbourhoods, i.e. within the same *janapadas*, where their ancestors had resided from fairly ancient times, and many perhaps from the time of the great Gautama Buddha. It is possible that over time many or some of them changed their faiths; became Buddhists, Jains, or Saivites, Vaishnavities, tantriks, snake worshippers, etc.; or at later times, even Muslims or Christians. But such a change does not seem to have affected their institutions in any appreciable degree. So there remained a spiritual, cultural and civilizational continuity. It is such continuity that, on the one hand, amazed men like Voltaire; and, on the other, gave rise to the impression of Indian stagnancy, or of India being the home of various conquerors from the West, from the days of the adventurer Alexander, and perhaps from earlier on. It may be added here that Alexander hardly moved any major distance into India from the eastern bank of the river Indus. But the historical texts of modern times, and perhaps of Greek antiquity too, seem to treat him as a conqueror of India. Most conquests of India which historical texts take into consideration seem to be of the same genre as the crossing of the Indus by Alexander.

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Notwithstanding her social and cultural continuities, India and its people and its polity are in a state of stalemate today. The seeds of such a stalemate may possibly have been sown much before the intrusion of Islam in Sindh in the seventh century A.D. But the extension and deepening of this state of affairs is of fairly recent origin, no older than 100–150 years. The major cause seems to be the mental confusion that has taken over Indian minds, leading to a loss of self-image, and loss of identity with the larger yet still highly diverse Indian society.

Such mental confusion and alienation, leading to a loss of self-image and identity, began to affect the prosperous and the scholarly Indian elite most. Even many of those who have had little personal contact with European Civilization and its artifacts began to lose their civilizational moorings as time passed. The British saw this happening as early as 1830.[39] By the 1890s, the decline had reached a stage when the great Swami Vivekananda felt convinced, ‘that we shall not be able to rise unless the

Western people come to our help. In this country no appreciation of merit can yet be found, no financial strength, and what is most lamentable of all, there is not a bit of practicality.'[40]

In the next 30 years, the Indian elite seemed to have surrendered to the West, completely. This is how one of them, an up and coming leader of the Indian National Congress, Jawaharlal Nehru saw it in 1928. In a letter to Mahatma Gandhi he wrote:

> You have stated it somewhere that India has nothing to learn from the West and that she had reached a pinnacle of wisdom in the past. I certainly disagree with this viewpoint...I think that western or rather industrial civilization is bound to conquer India, may be with many changes and adaptations, but none the less, in the main, based on industrialism. You have criticised strongly the many obvious defects of industrialism and hardly paid any attention to its merits. Everybody knows these defects and the utopias and social theories are meant to remove them. It is the opinion of most thinkers in the West that these defects are not due to industrialism as such but to the capitalist system which is based on exploitation of others.[41]

17 years later, in 1945, he seemed even more convinced of his views and said:

> I do not understand why a village should necessarily embody truth and non-violence. A village, normally speaking, is backward intellectually and culturally and no progress can be made from a backward environment. Narrow-minded people are much more likely to be untruthful and violent.[42]

Given such loss of self-image and identity, accompanied by the increasing alienation of the elite from the people and the reality of India, the split in Indian society became even deeper and wider.

Moreover, by the time of the making of India's constitution in 1947–49, the anglicised or westernised Indian had come to occupy seats of power and decision-making in the institutional frame of the British-created Indian state. Therefore any return to the earlier Indian norms became far more difficult. Finding it difficult to establish the primacy of the locality, indigenous Indian sentiment took to emphasising instead the place of the *jati*, or the extended kinship group. That the locality and extended kinship groups are complementary and cannot be functional separately, was improperly recognised. Further, it has yet to be fully realised that it was the primacy enjoyed by the localities which made them relate one with the other to form the larger Indian polity and thus, Indian civilization itself.

During 1947, at the time of the departure of British power, someone had asked Mahatma Gandhi what was to be expected from the regaining of freedom. He had then written that, 'we would need at least half that much time to cleanse our body-politic of the virus that has infiltrated every cell and pore of our being during our subjection', after '150 years of slavery'. The full letter, dated July 6, 1947, originally in Gujarati, read:

> You are gravely mistaken in assuming that as soon as *swaraj* comes prosperity will flood the country. If, before assuming that, you had used your imagination a bit to see that after 150 years of slavery, we would need at least half that much time to cleanse our body-politic of the virus that has infiltrated every cell and pore of our being during our subjection, you would not have found it necessary to ask me. I am sure you will understand what I mean, namely, that far greater sacrifices will be needed after the attainment of self-government to establish good government and raise the people than we required for the attainment of freedom by means of *satyagraha*.[43]

Mahatma Gandhi of course defined and understood such things from the point of *swarajya*, i.e, self-rule, not only in localities and communities but also in individuals too. This kind of definition of life seems to be central to the Indian view of life and society and man's artifacts. It therefore seems that many of the problems which India's polity faces are due to lack of proper definition and perspective and not so much only because of past plunder or physical suffering caused by Islam or Europe. An analysis of the basic Indian concepts and institutions like locality and extended kinship groups, and *janapadas*, kings, and council of ministers, etc., could perhaps help India in finding a solution to the problems of its polity and society.

Notes

1. *Mahabharatam:* Sabhaparvam: Chapter 14, verses 5–6; also Bhagwaddatt: *Bharat Ka Itihas* (in Hindi), 1944, pp.146–149.

2. *Mahabharatam:* Santiparvam: Chapter 67, verse 12; Chapter 59, verses 13–28; also earlier and subsequent chapters.

3. *Mahabharatam*: Santiparvam: Chapter 85: verses 7–11.

4. An account and English translation of these Uttaramerur inscriptions is given in T.V. Mahalingam, *South Indian Polity*,

University of Madras, 1955, pp.344–353; also K.A. Nilakanta Sastri, *The Colas*, University of Madras, 1935, (1984), pp.487, 495–496; Burton Stein, *Peasant State and Society, in Medieval South India*, Oxford (OUP), 1980, pp.146–147. The Society of Uttaramerur and its institutions and election procedure are also referred to in J.P. Narayan, *Plea for Reconstruction of Indian Polity*, 1959, pp.25–27.

5. The information in this and the following section, is based on material written in English, pertaining to a survey of around 2,200 localities in the district of Chengalpattu during the period 1767–1774. This material is held in the Tamil Nadu State Archives in Madras. Many more details relating to a number of these localities are still available on palm leaf manuscripts, now kept at the Tamil University at Thanjavur in Tamil Nadu. A detailed analysis of this data is presently being done by the *PPST Foundation*, and the *Centre for Policy Studies*, Madras.

6. Some account of such unarmed resistance, especially regarding widespread resistance against the imposition of a tax on houses in the Varanasi region in 1810–1811, is provided in Dharampal, *Civil Disobedience in Indian Tradition: With some early Nineteenth Century Documents*, (Vol.II of the *Collected Writings*).

7. There is much material on this in *India: The Transfer of Power,* vols. VII and VIII, May-July 1946 (HMSO, London): documents 297, 407, 442, 455, 509, 510 and 527 (Vol. VII), and documents 7 and 8 (Vol. VIII) directly pertain to this matter.

8. The India Office Library and Records (IOLR) in London has much material on this agitation in the papers of the British Viceroys Lord Lansdowne as well as Lord Elgin, and far more in the series L/P & J.

9. IOLR: Letter from Queen Victoria to the Viceroy Lansdowne, 1893.

10. IOLR: L/P & J/J & P 254/1894: Note on the Agitation against Cow-killing by D.F. McCracken, Offg. Gen. Supdt., Thagi and Dacoity Dept., 9.8.1893.

11. *India: The Transfer of Power,* Vol III, No. 280 (16.12.1942) (HMSO, London). The expression one card and the second card is in the original file (in IOLR) on the Secretary of State's draft on this subject. The draft also carries a marginal comment by the Secretary of State's deputy, the under Secretary of State for India, stating that the second card, i.e. the card of the scheduled castes was weak as it had already been cut by Gandhi. A few months later the Secretary of State seems to have had some after-thought. Writing to the British Viceroy in India he then said: 'The fundamental weakness of the scheduled castes is that they are neither one thing nor the other', and added: 'If they had the courage to turn Christian or Muslim *en bloc* it would be much easier to legislate for them. But so long as they remain a part of the Hindu system, with no separate religion or basis of organisation as such, and continue to regard themselves as Hindus, it does look as if their only chance of betterment lay, not on the political side, but on gradually winning their way socially in the Hindu Community.' This was on February 2, 1943 (*India: The Transfer of Power*).

12. *Collected Works of Mahatma Gandhi* Vol. XIX, pp.190–198, text of the constitution of the Indian National Congress adopted at Nagpur, December 1920. The information following in this para is taken from the University of Oxford doctoral dissertation (of around

1960) on the Indian National Congress 1920–1923 by Gopal Krishna.

13. Ibid, p.190.

14. CWMG, Vol.XLII, pp.384–385, January 10, 1930.

15. Proceedings of the Constituent Assembly of India during December 1946-January 1947, August 29, 1947, November 4–9, 1948, November 22, 1948, and November 17–26, 1949. These Proceedings are also reproduced in Association of Voluntary Agencies for Rural Development (AVARD) (compiled and edited by Dharampal), *Panchayat Raj as the Basis of Indian Polity: An exploration into the Proceedings of the Constituent Assembly*, Delhi, 1962 (included in Vol.4 of the *Collected Writings*).

16. Ibid., pp.20–21: Speech of M.R. Masani (Bombay).

17. Ibid., p.23: resolution appointing Scrutiny Committee.

18. Ibid., pp.2–25: speech of Law Minister B.R. Ambedkar (Bombay).

19. Ibid., p.25: speech of Damodar Swarup Seth (UP).

20. Ibid., pp.29–30: speech of Arun Chandra Guha (West Bengal).

21. Ibid., pp.30–32: speech of T. Prakasam (Madras).

22. Ibid., p.37: speech of Dakshyani Velayudhan (Madras); also pp.72–74: Kamalapati Tripathi (UP); also others.

23. Ibid., p.40: speech of Mahavir Tyagi (UP).

24. Ibid., p.44: addition of Article 31A regarding state to take steps to organise village panchayats.

25. Ibid., p.46: speech of T. Prakasam (Madras).

26. Ibid.. p.55–56: speech of K. Hanumanthaiya (Mysore).

27. lbid., p.60: speech of Raghu Vira (C.P. Berar).

28. Ibid., p.77: speech of Mahavir Tyagi (UP).

29. lbid., p.66: speech of Loknath Misra (Orissa).

30. Ibid., p.60–61: speech of Arun Chandra Guha (West Bengal).

31. Ibid., p.75: speech of Basanta Kumar Das (West Bengal).

32. The observations in this paragraph are dealt with in greater detail in Dharampal, *The Madras Panchayat System*: *A General Assessment*, (Vol.IV of the present collection). The book is based on a study made and completed during 1964 and 1965 on behalf of the All India Panchayat Parishad.

33. Jayaprakash Narayan, *A Plea for Reconstruction of Indian Polity* (draft for private circulation), Kashi (Akhil Bharatiya Sarva Seva Sangha), 1959.

34. See Vol.IV of the *Collected Writings*. p.10-11.

35. CWMG, Vol.XLVIII, pp.26–38, speech at Federal Structure Committee, September 17, 1931.

36. According to the American author Louis Fischer, the transformation in India within 10 years of 1917 was such that though still subject to British rule, Indians by and large had begun to feel free by 1928,1929, and 1930—the year when Gandhiji had launched the *satyagraha* against the tax on salt.

37. It is possible, however, that for some complex political reasons such a solution originated from the British Political Resident in Mysore. Residents had begun to be appointed to all such territories which had been brought under British protection (i.e., indirect

authority) but still were formally said to be ruled by Indian Maharajas, rajas, *nabobs*, and in the case of Hyderabad, by the Nizam. The process had been initiated around 1770 in Avadh, and the rule of the so-called 'Indian states' was in complete control of the political Residents from 1799 to 1947. The solution suggested by the Maharaja of Mysore is also referred to in the *Report of the Second Karnataka Backward Classes Commission*, Vol. I, 1986, pp.11–16.

38. *India: The Transfer of Power*, Vol. II, No. 424, Sir R. Campbell, Washington D.C. to Sir A. Cadogan, 5, August 1942 reporting on the conversation he has had with F.D. Roosevelt, the President of the United States of America.

39. The British Governor-General of India, William Bentinck, was very pleased around 1830 with such a development and welcomed the news that many prosperous Indians were moving away from Indian ways and were giving up the feeding of the poor, *sanyasis*, *brahmins*, etc., and were instead spending their wealth in the 'ostentatious entertainment of Europeans'.

40. *The complete works of Swami Vivekananda*, Calcutta (Advaita Ashram), 1989. Vol. V, pp.126–127: Swami Vivekananda to Saraladevi Ghoshal, 6.4.1897. This view was expressed by Swami Vivekananda several times during the later part of his life.

41. CWMG, Vol. XXXV, p.457, J. Nehru to Mahatma Gandhi, Jan. 12, 1928.

42. J. Nehru, *Selected works*, Vol. XIV, pp.554–557, J. Nehru to Mahatma Gandhi, October 4, 1945.

43. CWMG, Vol. LXXXVIII, pp.86–7.

ANNEX: CHENGALPATTU (1767–1774)*

(*This annexure did not appear with the printed version of the European Science Conference paper.)

The data from the Chengalpattu Survey 1767 -1774, either in English in some 20 registers or in Tamil on around 50,000 surviving palm-leafs, may be treated as an approximation to the then ground reality. The survey not only had certain defined purposes but was also governed by the outlook and understanding of those who directed or conducted it. For instance, an obvious understatement pertains to the number engaged in salt manufacture, which is given as 39, while the district of Chengalpattu had a coastline of over 100 kilometers, and salt pans covering an area of over 2,000 hectares.

It is possible that the survey recorded only those who were engaged in the supervision of salt manufacture and not the number of actual manufacturers. Various other industrial professions engaged in building houses, temples and other public places, or those who assisted the manufacture of cloth in various other ways, like dyeing, etc, or were engaged in the manufacture of chemicals, or taught in schools, or professed medicine, etc. also seem to have by and large escaped the notice of this survey. Yet, that it covered as much ground as it actually did is indicative of the practice of extensive record-keeping by the pre-British south Indian society and of their awareness of themselves, as also of the industry and perseverance of those engaged in the survey.

An effort has been made in Tables I, II, III to give some statistical idea of the society of Chengalpattu at this time, its dwindled cattle and sheep and goat population, and the allocation of the agricultural produce to various institutions and functions (like temples, mathams, irrigation, police, militia, accounting, etc.) and to various persons like artificers, barbers, washermen, potters, panisevans, kanakpillais, etc. It may however be added that these allocations were not the only income which these institutions or persons had. Most of them must have also received remuneration for their work from persons in the non-agricultural sector, as also individual personal payments (or in the case of temples, etc, offerings, donations and so on) for such work. Many both institutions as well as individuals also had land manyams. All families invariably also had a house site [Gramanattam] each one to itself wherever it lived.

Table 1

DETAILS OF NUMBER OF HOUSES OF PEOPLE FROM VARIOUS OCCUPATIONS AND JATIS IN CHENGALPATTU C.1770

	No. of Houses	No. of Houses In which residing	No. of Houses in which present	
			at 50% or more	at 30% or more
TOTAL HOUSEHOLDS:	62,529	1,544		
PEASANTRY AND CATTLE-KEEPING: 33,963				
Vellalas	7,411	—	53	182
Pallys	9,693	1,112	172	423
Pariars	11,052	1,108	82	344
Reddys	1,417	256	7	30
Kammawars	1,005	185	12	32
Cow-keepers	2,573	796	14	51
Shanars	812	256	10	25
INDUSTRIES & CRAFTS: 8,234				
Weavers	4,011	218	34	55
Fishermen	590	79	9	15
Shroffs (Banking)	422	344	—	—
Cotton-refiners	85	73	—	—
Carpenters	536	414	—	—
Iron-smiths	394	313	—	—
Artificers	45	18	—	—
Braziers	36	17	—	—
Gold & Silver-smiths	209	113	9	38
Vegetable Oil manufacturers	637	270	—	—
Potmakers	389	309	—	—
Wood cutters	596	182	—	—
Salt manufacturers	39	—	—	—
Shoemakers	78	27	—	—
Stone cutters	89	21	—	—
Other Industrial work (approx.)	500	—	—	—

	No. of Houses	No. of Houses In which residing	No. of Houses in which present at 50% or more	at 30% or more
MERCHANT AND TRADERS : 4,312				
Chettis	2,051	725	11	47
Other traders (Komatis, Cavaris)	1,839	—	—	—
ESSENTIAL SERVICES: 1,685				
Barbers	664	506	—	—
Washermen	862	719	—	—
Medical men	159	131	—	—
SCHOLARS, HIGHER LEARNING, RITUAL PERFORMANCES AND CULTURE: 8,064				
Brahmins	6,646	—	34	154
Pandarams	1,054	373	2	10
Devadasis	622	152	2	2
Valluvans	137	91	—	—
Wochuns	173	153	—	—
Musicians	27	25	—	—
Kootadi (Stage performers)	25	22	—	—
LOCALITY ADMINISTRATION, ACCOUNTS, ETC.: 1,974				
Kanakkuppillai (Registry/ Record keeping/ Accountancy)	1,660	714	2	2
Panisevans	314	213	1	1
Taliars (Police)	707	298		
Militia System	1,479		11	39
Muslims:	733			
Moormen	671	154	7	8
Fakirs	62	39		
REMAINING OTHER HOUSEHOLDS: 748				

Table 2
TOTAL NUMBER OF DOMESTIC CATTLE*

Cows	94,685
Buffaloes	5,417
Goats	14,931
Sheep	14,970
Bullocks	59,550

*The period from 1748 to 1770 was a period of war, plunder, and butchering of men as well as cattle by the British and by those who contested them in large parts of south India, and much more in areas around Madras. It is therefore possible that the number of cattle recorded in this survey was much less at the time of enumeration than what it might have been 20 years earlier.

Table 3
AMOUNT OF ESTIMATED TOTAL AGRICULTURAL PRODUCE, ALLOCATED TO VARIOUS INSTITUTIONS AND FUNCTIONS IN CHENGALPATTU

	In kalams*	In tonnes	No. of Individual recipients	No. of Localities contributing***
TOTAL AGRICULTURAL PRODUCTION	14,79,644	1,84,955	—	(1,458)
TOTAL ALLOCATIONS	3,94,950	49,369	—	(1,458)
For institutions and occupations within each locality	2,64,824	33,103	—	(1,458)
Local Kovils (Temples, Shrines)	13,882	1,735	—	(1,409)
Pandarams/Devadasis /Astrologers	18,503	2,313	—	(1,440)
Cultivators' Servants	87,504	10,938	—	(1,363)
Irrigation Fund	19,806	2,467	—	(1,047)
Artificers (Carpenters Ironsmiths)	19,470	2,435	975	(1,453)

	In kalams*	In tonnes	No. of Individual recipients	No. of Localities contributing***
Potters	2,749	344	389	(709)
Barbers	6,169	771	644	(1,439)
Washermen	6,058	757	862	(1,436)
Corn measurers	11,561	1,445	—	(1,303)
Shroffs	9,332	1,166	422	(1,201)
Kanakkupillais	31,624	3,953	1,660	(1,456)
Panisevans	3,110	389	314	(762)
Tottys	1,371	171	—	(272)
Chief Inhabitants	31,197	3,899	—	(1,332)
Various Others	2,488	32	—	
For Outside institutions and persons	1,30,126	16,266	—	(1,458)
Great Kovils/Mathams (Places of higher learning)**/Scholars	25,321	3,165	—	(1,280)
Administration	53,572	6,697	707	(1,347)
Palayakkarns (Militia)	45,936	5,742	1,479	(1,457)
Fakirs/Mosques/Darghas	2,518	351	—	(506)
Various Others	2,779	345		

*One *kalam* is equal to 125 kilograms.

**One such institution, the great Vishnu Temple in Chinna Kanchipuram, had grain allocations from the total agricultural produce from 1,265 localities. Nine others received such allocations from over 200 to 450 localities, and seven were receiving such allocations from 118 to 184 localities. Many of such scholarly centres, temples, great scholars, etc. in various regions of India would have also received similar contributions from localities in the adjoining districts, and some perhaps from very distant areas going up to the Himalayas. The great Jagannath temple at Puri and its allied institutions were receiving contributions from all over India, even from places which are now in Pakistan. Similarly, the famous temple at Tirupati, in the region adjoining Chengalpattu, received regular contributions and gifts sent, till around 1810 A.D., amongst others from the Marathas as well as from the king of Nepal.

***The number in parenthesis gives the number of localities which made contributions to the particular category of institutions or functions.

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V

BHARATIYA CHITTA, MANAS AND KALA

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*Bharatiya Chitta Manas and Kala *was written in Madras with the help of friends especially Dr. J. K. Bajaj, during the early months of 1991 in Hindi. These essays were published in* Jansatta*, Delhi during April 1991 (April 16, 17, 18, 19, and a much longer concluding piece on April 23). A few months later the* Jansatta *articles were published together in book form. The translation in English by J.K. Bajaj was published in early 1993 by the Centre for Policy Studies, Madras. This book has also been published in Kannada under the title* Bharatiya Chithha, Manasikathe, Kaala, *translated from Hindi in 1992 (pp. 118). A shorter version of it was also published in the Kannada monthly,* Uthhana, *in April 1993 (pp. 82–112). It is also being published in Hindi as a popular booklet by Azadi Bachao Andolan, Allahabad.*

On January 9, 1915, Gandhiji returned to India from his sojourn in South Africa. On his way back, he visited Britain for a short while. After that homecoming, he went abroad only once: in 1931, when he had to go to Britain to attend the round table conference. During that journey, he managed to make brief halts in France, Switzerland, and Italy. The Americans wanted him to extend his visit to the United States of America, too. But Gandhiji could not go to America, either then or later.

The journey to Britain in 1931 constituted the whole of Gandhiji's foreign travels after 1915—excepting, of course, his short visits to neighbouring Sri Lanka and Burma. Gandhiji, in fact, felt no need to frequently leave the shores of India. On the contrary, he was of the firm opinion that the struggle for the freedom of India had to be waged mainly in India. The world outside, according to him, could be of little help in this.

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The people of India had begun to repose great faith in Gandhiji even before his arrival in 1915, and several national dailies took editorial note of his homecoming. The phrases used and the expectations expressed in these editorial comments suggest that in India, he was already being seen as an *avatara*, as a manifestation of the divine.

The city of Bombay accorded an unprecedented welcome to Gandhiji and Kasturba. Numerous receptions were hosted in their honour. And the high elite of Bombay turned out enthusiastically to attend these receptions. Even members of the British Governor's Council of the Bombay Presidency and judges of the Bombay High Court participated in some of them.

Within three days of their arrival, however, Gandhiji and Kasturba began to feel somewhat out of place in the high society of Bombay. Already on January 12 Gandhiji was giving public expression to his feeling of unease. On that day, at a reception attended by more than 600 guests and presided over by Sir Ferozeshah Mehta, Gandhiji observed:

> He did not know that the right word would come to him to express the feelings that had stirred within him that afternoon. He had felt that he would be more at home in his own motherland than he used to be in South Africa among his own country men. But during the three days that they had passed in Bombay, they had felt—and the thought he was voicing was the feelings of his wife, too—that they were much more at home among those indentured Indians who were the truest heroes of India. They felt that they were indeed in strange company here in Bombay. (*Collected Works*, Vol.13, pp. 5–6).

Soon afterwards, Gandhiji's life-style began to change radically. His participation in the festivities of high society declined, and he started moving more and more among the ordinary people of India. The latter saw such transparent divinity in him that by the end of January he was being addressed as 'Mahatma' in his native Saurashtra. Just three months later, people in as far a place as Gurukul Kangari near Haridwar, more than a thousand miles from Bombay, were also addressing him as 'Mahatma Mohandas Karamchand Gandhi'.

The arrival of Mahatma Gandhi gave rise to an immediate awakening of the Indian people. They probably felt that the gods had responded to their sufferings and had sent someone from amongst them to lessen their burdens. And, this feeling of having been taken under the protection of the gods, through the divine presence of Mahatma Gandhi, remained with them for the next thirty or more years. Many Indians might have never seen him. A large number of them might have sharply disagreed with his ways. Some might have doubted, till as late as 1945–46, the viability of his methods in achieving the goal of freedom. Yet practically all Indians perceived the presence of the divine in him; and that was probably the source of the self-confidence and the courage that India displayed in such large measure during his days.

• • •

Indians have a long-standing belief that the divine incarnates in various forms to lessen the burdens of the earth. This happens oft and again. There are times when the complexity of the world becomes too much to bear; when the sense of right and wrong gets clouded; and when the natural balance of life, the *dharma*, is lost. At such times, according to the Indian beliefs, the divine incarnates on the earth, to help restore the balance and the *dharma*, and to make life flow smoothly once again.

Indians have held this belief in the repeated incarnations of the divine for a very long time, at least since the time of compilation of the *Ramayana*, the *Mahabharata* and the *Puranas*. The *Mahabharata* is in fact the story of one such divine intervention. By the end of the *Dvapara yuga*, the *dharma* had got so emaciated that the earth, unable to bear the burdens of the *a-dharmic* life on her, went to Vishnu and prayed for his intervention. On the advice of Vishnu, the *devas* worked out an elaborate strategy. Many of them took birth in various forms. Vishnu himself was born as Srikrishna. And, Srikrishna along with the other *devas*, fought the great war of *Mahabharata* to rid the earth of her burdens.

Buddhist epics like the *Lalita Vistara* similarly present the story of the birth of Gautama Buddha as another instance of the process of divine incarnation for the restoration of *dharma*. And Jaina epics tell similar stories about the incarnations of the divine as the *Tirthankaras*.

• • •

To solve the problems of life on this earth, and to restore the balance, the divine incarnates, again and again, at different times in different forms. This is the promise that Srikrishna explicitly makes in the *Srimad Bhagavadgita*. And, the people of India seem to have always believed in this promise of divine compassion. It is therefore not surprising that when Mahatma Gandhi arrived in India in 1915 many Indians suddenly began to see him as another *avatara* of Vishnu.

The state of India at that time would have seemed to many as being beyond redress through mere human efforts, and the misery of India unbearable. The time, according to the Indian beliefs, was thus ripe for another divine intervention. And it is true, that with the arrival of Mahatma Gandhi, the state of hopelessness and mute acceptance of misery was relieved almost at once. India was set free in her mind. The passive acceptance of slavery as the fate of India disappeared overnight, as it were. That sudden transformation of India was indeed a miracle, and it had seemed like a divine feat to many outside India too.

But though Mahatma Gandhi awakened the Indian mind from its state of stupor, he was not able to put this awakening on a permanent footing. He was not able to establish a new equilibrium and a secure basis for a re-awakened Indian civilisation. The search for such a secure basis for the resurgence of Indian civilisation in the modern times would have probably required fresh initiatives and a fresh struggle to be waged following the elimination of political enslavement. Unfortunately, Mahatma Gandhi did not remain with us long enough to lead us in this effort, and it consequently never took off.

It seems that the spirit which Gandhiji had awakened in the people of India was exhausted with the achievement of Independence. Or, perhaps, those who came to power in independent India had no use for the spirit and determination of an awakened people, and they found such awakening to be a great nuisance. As a result, the people began to revert to their earlier state of stupor, and the leaders of India, now put in control of the State machinery created by the British, began to indulge in a slave-like imitation of their British predecessors.

• • •

The self-awakening of India is bound to remain similarly elusive and transient till we find a secure basis for a confident expression of Indian civilisation within the modern world and the modern epoch. We must establish a conceptual framework that makes Indian ways and aspirations seem viable in the present, so that we do not feel compelled or tempted to indulge in demeaning imitations of the modern world, and the people of India do not have to suffer the humiliation of seeing their ways and their seekings being despised in their own country. And, this secure basis for the Indian civilisation, this framework for the Indian self-awakening and self-assertion, has to be sought mainly within the *chitta* and *kala* of India.

Gandhiji had a natural insight into the mind of the Indian people, and their sense of time and destiny. We shall probably have to undertake an elaborate intellectual exercise to gain some comprehension of the Indian *chitta* and Indian *kala*. But we can hardly proceed without that comprehension. Because, before beginning even to talk about the future of India we must know what the people of this country want to make of her. How do they understand the present times? What is the future that they aspire for? What are their priorities? What are their seekings and desires? And, in any case, who are these people on whose behalf and on the strength of whose efforts and resources we wish to plan for a new India? How do they perceive themselves? And, what is their perception of the modern world? What is their perception of the universe? Do they believe in God? If yes, what is their conception of God? And, if they do not believe in God, what do they believe in? Is it *kala* that they trust? Or, is it destiny? Or, is it something else altogether?

• • •

We, the educated elite of India, are wary of any attempt to understand the Indian mind. Many of us had felt uneasy even about Gandhiji's efforts to delve into the *chitta* and *kala* of the people of India (and voice what he perceived to be their innermost thoughts and feelings). We are somehow afraid of those inner thoughts of the people of India. We want to proceed with the myth that there is nothing at all in the Indian mind, that it is a clean slate on which we have to write a new story that we ourselves have painstakingly learnt from the West.

But we are also probably aware that the Indian mind is not such a clean slate. In reality it is imbued with ideas on practically all subjects. Those ideas are not new. They belong to long-standing traditions, some of which may be as old as the *Rig Veda*. Some other aspects of these traditions may have emerged with Gautama Buddha, or with Mahavira, or with some other leader of Indian thought of another Indian epoch. But from whatever source and at whatever epoch the various ideas that dominate the minds of the Indian people may have arisen, those ideas are indeed etched very deep. Deep within, we, the elite of India, are also acutely conscious of this highly elaborate structure of the Indian mind. We, however, want to deny this history of Indian consciousness, close our eyes to the long acquired attributes of the Indian mind, and wish to reconstruct a new world for ourselves in accordance with what we perceive to be the modern consciousness.

Therefore, all efforts to understand the *chitta* and *kala* of India seem meaningless to us. The study of the history of the eighteenth and nineteenth century India, which I undertook in the nineteen sixties and the seventies, was in a way an exploration into the Indian *chitta* and *kala*, and to many educated Indians that exploration too had seemed a futile exercise. That study, of course, was not the most effective way of learning about the Indian mind. It did help in forming a picture of the physical organisations and technologies through which Indians prefer to manage the ordinary routines of daily life. It also provided some grasp of the relationships between various constituents of society and polity within the Indian context. But it was not enough to provide an insight into the inner attitudes and attributes of the Indian mind. The mind of a civilisation can probably never be grasped through a study of its physical attributes alone.

However, many who came to know of this work were disturbed even by this limited study of the Indian ways. When I began to look into the eighteenth and nineteenth century documents relating to the Indian society in 1965-66, a close friend in Delhi wanted to know why I had started digging up the dead. He suggested, with great solicitude, that I should spend my time more usefully in some other pursuit.

Later, many others said that what I had discovered about the state of Indian society in the eighteenth century might have been true then. Indian society of that time might have practiced highly developed agriculture, produced excellent steel, discovered the process of inoculation against smallpox and the art of plastic surgery. That society might have also evolved highly competent structures of locality-centered social and political organisation. All this, they said, was fine. It felt good to talk and hear about such things. This knowledge may also help, they conceded, in awakening a feeling of self-respect and self-confidence amongst the Indian people. But all such arts, techniques and organisational skills of the Indian civilisation, they were convinced, were of hardly any relevance in the present context. What could be gained by delving into this irrelevant past of India and learning about her lost genius?

I was asked this question repeatedly then, and many keep asking the same question now. Some time ago, I had an opportunity to meet the then Prime Minister of India, Sri Chandra Sekhar. He, too, wanted to know why I was so caught up with the eighteenth century. We should be thinking, he felt, of the twentieth and the twenty-first centuries, since the India of the eighteenth century was anyway long past and dead. My close friends express the same sentiment even more strongly. It seems that all of us are so immersed in the thoughts of the twenty-first century that we have no patience left for even a preliminary study of our own *chitta* and *kala*.

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But, whose twentieth and twenty-first centuries are we so anxious about? The epoch represented by these terms has little to do with our *chitta* and *kala*. The people of India, in any case, have little connection with the twentieth or the twenty-first century. If Pandit Jawaharlal Nehru is to be believed, they are perhaps still living in the seventeenth or the eighteenth century. Pandit Nehru often used to say this about his fellow Indians, and he was very worried that the Indians obstinately continue to persist within the eighteenth century and refuse to acknowledge the arrival of the twentieth.

The people of India, in fact, may not be living even in the eighteenth century of the West. They may still be reckoning time in terms of their *pauranic* conceptions. They may be living in one of the *pauranic yugas*, and looking at the present from the perspective of that *yuga*. It is possible, for we know next to nothing about the *chitta* and *kala* of the Indian people, that they are living in what they call the *Kali yuga*, and are waiting for the arrival of an *avatara purusha* to free them from the bondage of *Kali*. After all, they did perceive in Mahatma Gandhi an *avatara purusha* who had arrived amongst them even during this twentieth century of the West. Perhaps they are now waiting for the arrival of another *avatara*, and are busy thinking about that future *avatara* and preparing for his arrival. If so, the twentieth century of the West can have little meaning for them.

In any case, the twentieth century is not the century of India. It is the century of the West. To some extent, the Japanese may take this to be their century too. But basically it represents the epoch of Europe and America. Since we cannot completely severe our ties with Europe, America and Japan, we perhaps have to understand this century which is theirs. But this attempt at understanding their epoch does not mean that we start deluding ourselves of being among its active participants. In fact our understanding of the twentieth century, for it to be of any use to us or to the West, shall have to be from the perspective of our own *kala*. If according to the reckoning of the people of India the present is the *kala* of the *Kali yuga*, then we shall have to look at the present of the West through the categories of *Kali yuga*. One understands others only from one's own perspective. Attempts to live and think like the others, to transport oneself into the *chitta* and *kala* of others, leads merely to delusion.

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It is possible that some amongst us believe that they have rid themselves completely of the constraints of their Indian consciousness and the Indian sense of time. They are convinced that, having transcended their Indian identity, they have fully integrated themselves with Western modernity, or perhaps with some kind of ideal humanity. If there happen to be any such transcendent Indians, then for them it is indeed possible to understand the Indian *Kali yuga* from the perspective of Western modernity. Such Indians can perhaps meaningfully meditate on the ways of forcing the Indian present into the mould of the twentieth century.

But such transcendence is not granted to ordinary human beings. Even extraordinary souls find it impossible to fully transcend the limits of their own time and consciousness, their *chitta* and *kala*, and enter into the *kala* of another people. A man like Pandit Jawaharlal Nehru, for instance, found it difficult to perform this feat successfully. Even he was not able to rid himself completely of his innate Indian-ness. He was not able to go beyond the strange irrationality, the irreducible nonsense, which as Mahatma Gandhi observed in his address to the Christian missionaries in 1916 at Madras, pervades India. India, Gandhiji said then, is a country of 'nonsense'. Pandit Nehru could not fully erase that 'nonsense' from his mind. What he could not do in this regard, other Indians have even less chance of accomplishing.

The elite of India have indeed adopted the external forms of the modern West. They may have also imbibed some of the

Western attitudes and attributes. But it seems unlikely that at the level of the *chitta* they would have been able to distance themselves much from the Indian ways. Given the long history of our contacts with the Western civilisation, it is probable that some fifty thousand Indians might have in fact fully de-Indianised themselves. But these fifty thousand or even a somewhat larger number matter little in a country of eighty-five crores.

The few Indians, who have transcended the boundaries of Indian *chitta* and *kala*, may also wish to quit the physical boundaries of India. But when India begins to live according to her own ways, in consonance with the *chitta* and *kala* of the vast majority of her people, then many of such lost sons and daughters of India will in all probability return to their innate Indian-ness. Those who cannot shall find a living elsewhere. Having become part of an international consciousness, they can probably live almost anywhere in the world. They may go to Japan. Or, to Germany, if Germany wants them. Or, perhaps to Russia, if they find a pleasurable place there. To America, they keep going even now. Some four lakhs of Indians have settled in the United States of America. And, many of them are engineers, doctors, philosophers, scientists, scholars and other members of the literati.

Their desertion of India is no major tragedy. The problem of India is not of those who have transcended their Indian-ness and have left the shores of India. The problem is of the overwhelming majority who are living in India within the constraints of Indian *chitta* and *kala*. If India is to be built with their efforts and cooperation, then we must try to have an insight into their mind and their sense of time, and understand the modern times from their perspective. Knowing ourselves, and our *chitta* and *kala*, it shall also be possible to work out modes of healthy and equal interaction with the twentieth century of the West. But the questions regarding interactions with others can be addressed only after having achieved some level of clarity about ourselves.

II

There are probably many paths to an understanding of the *chitta* and *kala* of a civilisation. In studying the eighteenth century Indian society and polity, I traversed one such path. But that path led only to a sketchy comprehension of merely the physical manifestations of the Indian mind. It gave some understanding of the way Indians preferred to organise their social, political and economic life, when they were free to do so according to their own genius and priorities. And, their modes of organisation probably had something to do with the *chitta* and *kala* of India.

To learn about the people of India, to try to understand the way they live, the way they think, the way they talk, the way they cope with the varied problems of day-to-day living, the way they behave in various situations—and thus to know in detail about the ways of the Indians is perhaps another path to a comprehension of the Indian *chitta* and *kala*. But this is a difficult path. We are probably too far removed from the reality of Indian life to be able to perceive intelligently the ways in which the people of India live within this reality.

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It may be relatively easier to comprehend the Indian mind through the ancient literature of Indian civilisation. In fact, the process of understanding the Indian *chitta* and *kala* cannot possibly begin without some understanding of the vast corpus of literature that has formed the basis of Indian civilisation and regulated the actions and thoughts of the people of India for millennia. We have to come to some understanding of what this literature—beginning with the *Rig Veda*, and running through the *Upanishadas*, the *Puranas*, the *Mahabharata*, the *Ramayana* and the Bauddha and the Jaina canons—says about the Indian ways and preferences. Indian texts dealing with the problems of mundane living, like those of the *Ayurveda*, the *Silpa sastra*, and the *Jyotisha sastra*, etc., also have to be similarly understood.

We should probably begin by forming a quick overview of the totality of this literature. Such an overview should provide us with a preliminary picture of the Indian mind, and its various manifestations in the political, social, economic, and technological domains. This initial picture of Indian-ness shall get more and more refined, as we continue our explorations into the corpus of Indian literature, and supplement it with observations on the present and investigations into the historical past. In the process of this refinement, we may find that the preliminary picture which we had formed was inadequate and perhaps even erroneous in many respects. But by then that preliminary picture would have served its purpose of setting us on our course in the search for a comprehension of the Indian *chitta* and *kala*.

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We have so far not been able to form such a preliminary picture of the Indian *chitta* and *kala*. It is not that no work is being done in India on Indian literature. We have a large number of institutes founded with the specific mandate of studying the various texts of Indian literature. Many high scholars have spent long years investigating various parts of the Indian corpus. But, these institutes and the scholars, it seems, have been looking at Indian literature from the perspective of modernity.

Indology, by its very definition, is the science of comprehending India from a non-Indian perspective, and practically all Indian scholars and Indian institutions engaged in the study of Indian literature fall within the discipline of Indology. They have thus been trying to make India comprehensible to the world. But what we need to learn from Indian literature is how to make modernity comprehensible to us, in terms of our *chitta* and *kala*. We need to form a picture of the Indian *chitta* and *kala*, and to place the modern consciousness and modern times within that picture. Instead, our scholars have so far only been trying to place India, the Indian mind and Indian consciousness, within the world-picture of modernity.

This exercise of exploring India from the perspective of Western modernity has been going on for a long time. The West has been studying various aspects of India for the last four to five centuries. Western scholars have tried to comprehend our polity, our customs, our religious and philosophical texts, and our sciences, arts and techniques, etc. Their attempts have obviously been guided by the interests and concerns of the West at various times. They read into Indian literature what suited and concerned them at any particular time.

Following the scholars of the West, and more or less under their inspiration, some modern Indian scholars also started getting interested in the study of Indian literature. Consequently, specialised institutions for such study began to be founded in India.

A number of these institutions opened up in Maharashtra. Many similar institutions came up in Bengal. And, some so-called Universities for Sanskrit learning began to function in various parts of India.

All these institutions, colleges and universities of Indian learning were conceived along the lines laid down by Western scholarship. Their organisation had no relation to the traditional organisation of learning in India. They were in fact structured on the pattern of the corresponding Western institutions, especially those in London. And, their main objective was to find a place for Indian learning within the various streams of modern Western scholarship.

The Sanskrit University at Varanasi is one example of the institutions of Indian learning that came up in India. An institution known as the Queen's College had been functioning in Varanasi from the times of Warren Hastings. Later the same College was named the Sampurnananda Sanskrit University. Today this University is counted amongst the most important institutions of Indian learning in the country. Most of the other Indian institutions engaged in the study of Indian literature have similar antecedents and inspirations behind them. And more of the same type are being established even today.

These institutions, created in the image of their Western counterparts, are burdened from their very inception with all the prejudices of the West and the complete theoretical apparatus of Western scholarship on India. Like the Western scholars, the Indian indologists have been merely searching for occasional scraps of contemporary relevance from the remains of a civilisation that for them is perhaps as dead and as alien as it is for the West.

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The work of the indologists is in fact akin to anthropology. Anthropology, as recognised by its practitioners, is a peculiar science of the West. The defeated, subjugated and fragmented societies of the non-Western world form the subject of this science. Anthropology thus is the science of the study of the conquered by the conquerors. Claude Levi Strauss, an authentic spokesman and a major scholar of anthropology, defines his discipline more or less in these terms.[1] Indian indologists, anthropologists, and other academics may wish to disagree with such a definition, but within the community of practitioners of anthropology there is hardly any dispute on the issue.

It is true that not many scholars would like to state the objectives of anthropology quite as bluntly as Claude Levi Strauss does. But then Levi Strauss is an incisive philosopher who does not care to hide the facts behind unnecessary verbiage. It is obvious that anthropological tools cannot be used for studying one's own society and civilisation. Nor is it possible for the scholars of the non-Western world to invert the logic of this science, and study the conquerors through the methods evolved for the study of the conquered. But Indian indologists are in fact trying to study India through anthropological categories. If Claude Levi Strauss is to be trusted, they can achieve no comprehension of their own society through these efforts. They can at best collect data for the Western anthropologists to comprehend us.

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It is not that this supplementary anthropological work requires no great effort or scholarship. Indian indological scholars have in fact invested enormous labour and stupendous scholarship in the work they have been doing. A few years ago a critical edition of the *Mahabharata* was brought out in India. This edition must have involved hard slogging effort of some forty or fifty years. Similar editions of the *Ramayana*, the *Vedas* and many other Indian texts have been produced in India.

There has also been a great deal of translation activity. Many texts, originally in Sanskrit, Pali, Tamil, and other Indian languages, have been translated into English, German and French. There have also been occasional translations into some other European languages. And, of course, there have been translations of the ancient texts into modern Indian languages. The Gita Press of Gorakhpur has translated a large body of classical Indian literature into simple Hindi, and has managed to bring these translated texts within the reach of the ordinary Hindi-speaking Indian. A number of texts have also been translated into Gujarati. And, perhaps there have been similar translations into many other Indian languages. All this amounts to a fairly large body of work. And this work has indeed been accomplished with great labour and painstaking scholarship.

These scholarly redactions, translations and commentaries have, however, all been carried out from a modern perspective, and according to the rules of the game of Indology laid down by the Western scholars. When the Indian scholars have managed to avoid Western biases and Western methodologies, as those associated with the Gita Press of Gorakhpur have done to a large extent, they have been carried away by a sense of uncomprehending devotion. This great effort has therefore contributed little towards a comprehension of the Indian *chitta* and *kala*. If any thing, it has only helped in reading modern Western prejudices and concepts into Indian literature, and perhaps also in attributing these to the essential Indian consciousness. In fact, what has emerged from the efforts of Indian indologists, when it is not entirely inane, reads like a queer commentary, a deviant *bhashya*, by someone who has been completely swept off his feet by the currents of modernity.

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To gauge how deeply modernity has insinuated itself into the work of Indian scholars, it is enough to have a look at Sri Sripad Damodar Satawalekar's translation of *Purusha Sukta*, and his commentary on it. Sri Satawalekar reads the *Purusha Sukta* to mean that from the sacred effort, *tapas*, of Brahman, there arose, at the beginning of the universe, a modern government with its varied departments. And, he goes on to name some twenty departments which the *Purusha Sukta* supposedly defines. From Sri Satawalekar's commentary, it seems as if the content of the *Purusha Sukta* is merely a concise prescription for the establishment of a government on the pattern of modern departmental bureaucracy.

Sri Satawalekar was a great scholar. He is recognised and respected as a modern *rishi* of India. His intellect, his commitment to the Indian thought, and the intensity of his effort were indeed very high. But even he got so carried away by the unrelenting sweep of modernity that he began to see a prescience of the modern governmental organisation in the *Purusha Sukta*. Much of the work done by the Indian scholars on Indian literature is similarly tainted by the touch of modernity. In essence, what these scholars assert is that the peculiar attributes and specific comprehensions of the world that the West displays today had been arrived at long ago in the Indian literature. Ancient Indian literature, according to their understanding, records in its somewhat quaint language and phraseology essentially the same thoughts and apprehensions, and even the same organisational principles and techniques, that the West has arrived at only recently.

During the last twenty or thirty years there has been a fresh spurt in this kind of indological activity. But what use is all this scholarship? If we are concerned only about others' understanding of the world, and carry out our discourse on their terms and in their categories, then that can well be done without bringing the ancient Indian literature into the picture. Why demean this ancient literature by imputing it with modernistic presentiments? Why drag in our ancient *rishis* to stand witness to our blind validation of Western modernity? We may call upon our ancestors and their literature in testimony of a resurgence of the Indian spirit. But modernity hardly needs their testimony to assert itself.

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Let us look at another example of the type of scholarly work on the Indian literature being carried out in India. For a long time, perhaps for more than a hundred years, the scholars of Indology have been trying to make a compilation of the available catalogues and lists of known Indian manuscripts in various languages. After their long and tedious search, they have recently come to the conclusion that there exist probably two thousand catalogues of Indian manuscripts in Sanskrit, Pali, Tamil, Prakrit, etc. These two thousand catalogues are from perhaps seven or eight hundred different locations, and about one third of these locations may be outside India. Each of these catalogues lists a hundred or two hundred manuscripts. The scholars thus have a listing of two to four lakh Indian manuscripts.

This compilation of all available catalogues is indeed a task of great labour and scholarship. It could not have been easy to collect catalogues from seven to eight hundred different locations and compile them into a single comprehensive catalogue. But what purpose of ours will be served by this comprehensive catalogue compiled with so much labour and scholarship? It has taken more than a hundred years to complete this compilation. Numerous foreign and Indian scholars have contributed to this task. But we do not even have an idea of the state of the manuscripts listed in this grand compilation. We do not know how many of the manuscripts listed actually survive today, and of those which survive, how many are in a condition fit enough to be opened and read, or even microfilmed.

In a somewhat similar exercise of scholarly thoroughness, some eminent scholars of India keep mentioning that there are some fifty crore Indian manuscripts in various Indian languages which have survived till today. Again, nobody has any idea where and how these crores of manuscripts are to be found, and what is to be done with them. It is in a way astonishing that we are occupied with exploring and establishing the possible existence of lakhs and crores of manuscripts that will almost certainly remain unavailable and unreadable, while we are making no efforts to understand and comprehend the literature that happens to be easily available to us.

It is true that there are scholars in all ages who prefer to engage themselves in esoteric exercises, the results of which are unlikely to be of any earthly use to anybody. The grand compilation of Indian manuscripts and the speculation about there being crores of manuscripts to be located and catalogued, probably belong to a similar genre of scholarship. In functioning societies much of the scholarship is directed to specific social purposes, though some amount of this kind of esoteric activity also often takes place. When a society is moving on a well-defined course of its own, and the majority of the scholars are purposefully engaged, then the few who are so inclined are allowed to indulge in their explorations into the unusable and the futile. And, functioning societies, sooner or later, are able to put the results of their esoteric investigations also to some use somewhere.

But we have neither the resources nor the time for such indulgence. If we are to comprehend our *chitta* and *kala*, and thus prepare a conceptual ground on which we may firmly stand and have a look at the world, then this directionless scholarship can be of little help. We need to form a picture of the Indian view of the world based on a quick overview of the totality of literature available to us, so that we have a framework within which the mainstream of Indian scholarship may operate. Once that mainstream is established and starts running strong and deep, there will also be time and opportunity for various scholarly deviations and indulgences.

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Whenever I speak of the need to arrive at some such rough and ready outline of the Indian view of the world through a study of the ancient Indian literature, my friends advise me to keep out of this business. I am told that ordinary mortals like us can hardly understand this literature. As most of these texts are in Sanskrit, they insist that one must be a serious scholar of Sanskrit in order to have any comprehension of these texts of India. Approaching these texts through Hindi or English, it is said, can only lead to error and confusion. Therefore, if one were bent upon reading this literature, then one must first immerse oneself in a study of the Sanskrit language.

But how many in India today have any fluency in Sanskrit? Nowadays, one can even get a doctorate in Sanskrit without seriously learning the language. One can write a thesis in English and obtain a Ph.D. degree for Sanskrit literature from most Indian universities. It seems that scholars who are seriously interested in learning Sanskrit are now found only in Germany. Or, perhaps, some Japanese scholars may be learning this great Indian language. There may also be some fluent Sanskritists in Russia and America. But there are hardly any serious students of Sanskrit amongst the modern scholars of India. There may be a thousand or so of the traditional Pandits who still retain a certain level of competence in the language. And, among the families traditionally associated with Indian learning, there may still be four or five lakh individuals who can read and understand Sanskrit, though few would be fluent enough to converse in it. That is about all the talent we have in the language.

The All India Radio (Akashvani), has been broadcasting an early morning news-bulletin in Sanskrit for many years. But there are probably not many who listen to this bulletin. I once asked Sri Ranganatha Ramachandra Divakar whether there would be ten lakh listeners of the Sanskrit news-bulletin. Sri Divakar had spent many decades in the public life, and he was a venerable scholar in his own right. His understanding was that in India the number of listeners of the Sanskrit news-bulletin could not be that large.

South India has had a long tradition of Sanskrit learning. Some time ago, I happened to meet Sri Sivaraman, the scholarly former editor of the Tamil daily, *Dinamani.* I asked him about his estimate of the number of people in South India who might still be fluent in the language, and who might feel comfortable reading, writing and speaking in Sanskrit. His answer was that there was probably not a single such individual in South India. There might be, he later said, about a thousand scholars, definitely not any more, who would have some level of competence in Sanskrit, but even they were unlikely to be fluent in the language.

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If this is the state of Sanskrit learning in the country, if there are hardly any people left who can read, write and speak Sanskrit fluently, then there is no point in insisting that all Indian literature must be approached through Sanskrit. We have to accept the condition to which we have been reduced, and we must start building up from there. If for the time being, Sanskrit has become inaccessible to us, then we must do without Sanskrit, and work with the languages that we are familiar with.

It is of course true that no high scholarly work on Indian literature can be done without knowing the language of that literature. But what is urgently needed is not high scholarship, but a rough and ready comprehension of ourselves and the world. We need a direction, a vision, a conceptual basis, that is in consonance with the Indian *chitta* and *kala*, and through which we can proceed to understand the modern world and the modern times. Once such a way is found, there will be time enough to learn Sanskrit, or any other language that we may need, and to undertake detailed high scholarship in our own way, on not only the Indian literature but also perhaps on the literature of other civilisations of the world.

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But the detailed scholarship can wait. What cannot wait is the task of finding our direction and our way, of forming a quick vision of the Indian *chitta* and *kala*. This task has to be performed quickly, with whatever competence we have on hand, and with whatever languages we know at the present time.

III

As we seem to have little comprehension of the Indian *chitta* and *kala*, we are often bewildered by the variety of questions that arise in ordinary social living. What is the relationship between the individual, the society and the state? Which of them has primacy in which fields? What are the bases of healthy interaction between individuals? What is civilised behaviour in various situations? What are good manners? What is beautiful and what is ugly? What is education and what is learning?

In societies that retain their connection with their traditions, and which function according to the norms of their own *chitta* and *kala*, all such questions are answered in the normal course. Of course the answers change from time to time, and context to context, but that too happens naturally, without conscious effort.

But since we have lost practically all contact with our tradition, and all comprehension of our *chitta* and *kala*, there are no standards and norms on the basis of which we may answer these questions, and consequently we do not even dare to raise these questions openly any more. Ordinary Indians perhaps still retain an innate understanding of the norms of right action and right thought, though signs of confusion on such issues are often seen even among them. But our elite society seems to have lost all touch with any stable norms of behaviour and thinking. All around, and in all situations, there prevails a sense of confusion and forgetfulness. It seems as if we are left with no standards of discrimination at all.

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A few years ago, the then Governor of Andhra Pradesh visited the Sankaracharya of Sringeri. During their conversation, a reference to the *varna vyavastha* arose in some context, and the Sankaracharya started explaining different facets of this *vyavastha* to the Governor. At this the Governor advised the Acharya that he should avoid talking about the *varna* arrangement. And the Sringeri Acharya fell silent. Later, relating the incident to his junior Acharya, he regretted that India had reached a state, where the Acharyas could not even talk about *varna*.

In a functioning society, such an incident would seem rather odd. The oddity is not related to the validity or otherwise of the *varna* arrangement. There can of course be many different opinions about that. But a Governor asking a Sankaracharya to stop referring to the *varna vyavastha* is a different matter. In a society rooted in its traditions and aware of its civilisational moorings, this dialogue between a head of the State and a religious leader would be hard to imagine. Saints are not asked to keep quiet by governors, except in societies that have completely lost their anchorage.

Religious leaders are not supposed to be answerable to the heads of the State. Their answerability is only to their tradition and to the community of their disciples. It is part of their calling to interpret the tradition, and to give voice to the *chitta* and *kala* of their society, according to their understanding. No functioning societies can afford to curb them in their interpretations and articulations.

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Numerous instances of a similar lack of discrimination in social and personal conduct on the part of the best of India's men and women can be recounted. Consider the example of Sri Purushottam Das Tandon taking to the habit of wearing rubber chappals because he wanted to avoid the violence involved in leather-working. Sri Tandon was one of the most erudite leaders of India. His contribution to the struggle for *swaraj* was great. He had deep faith in the concept of *ahimsa*. And, in pursuance of the practice of *ahimsa*, he took to wearing rubber chappals bought from Bata, the multinational footwear chain, giving up the ordinary leather chappals made by the local shoemaker. There must have been many others who, like Sri Tandon, chose Bata chappals over the locally made leather footwear in their urge to practise the principle of *ahimsa*.

It is of course creditable that important leaders of India had become so careful about their personal conduct and apparel, and took such pains to ensure that they did not participate in the killing of animals even indirectly. But *ahimsa* does not merely imply non-killing. *Ahimsa* as understood in the Indian tradition and as elaborated by Mahatma Gandhi is a complete way of life.

A major aspect of the *ahimsak* way of life is to minimise one's needs and to fulfill these, as far as possible, from within one's immediate neighbourhood. This practice of relying preferentially on what is available in the immediate neighbourhood and locality is as important a part of the principle of *ahimsa* as the doctrine of non-killing. That is why for Mahatma Gandhi *ahimsa* and *swadesi* were not two different principles. Looked at in this perspective, Sri Tandon's practice of ignoring the local cobbler and taking to the rubber footwear from Bata would have violated the aesthetic as well as the ethical sensibilities of the *ahimsak* way of life.

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Nowadays it is fashionable in the high society of India to use special ethnic goods which are often brought from thousands of miles away. And, this is often done with the noble intention of encouraging *khadi* and village industries, or Indian handicrafts.

This, then, is another instance of our failure to discriminate between the essence of a principle, and its contextually and temporally limited applications.

Mahatma Gandhi laid stress upon *khadi* and village industries as two specific applications of the principle of *swadesi*. In the context and the time of the freedom struggle these two were perhaps the most effective applications that he could choose, though, as he said in 1944, given a different context he would have probably chosen agriculture as the activity that most symbolised *swadesi*. In any case none of these specific activities and applications could in themselves form the essence of *swadesi*. The essence is in the frame of mind that seeks to fulfill all societal needs from the resources and the capabilities of the immediate neighbourhood. Using ethnic goods imported from far off places violates the essence, while conforming to the form, of *swadesi*.

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The instances we have mentioned are probably matters of mere personal etiquette. It can be said that too much should not be read into these personal idiosyncrasies. We, however, seem to be similarly befuddled on questions of much larger social relevance.

For example, we seem to have so far failed to decide on the meaning of education for ourselves. Recently, there was a conference on education held at Saranath. A number of eminent scholars of India had gathered there. Amongst them there were vice-chancellors of major universities, reputed professors of philosophy, and celebrated practitioners of high literature. They had come together at Saranath to deliberate on the question of education. They had chosen a beautiful venue for their meeting. In

Saranath there is a major institute of Buddhist learning, the Tibetan Institute. The conference on education was being held in this Institute. The director of the Tibetan Institute, Sri Samdhong Rinpoche, a high scholar himself—the highest Acharyas in Tibet, including the Dalai Lama, have the title of Rinpoche—sat through most of the deliberations of the conference.

At the beginning of this conference, I sought to know from the assembled scholars the meaning of education as understood by us. Is it merely the craft of reading and writing, or is it something else? There was no answer at that stage. But, on the fourth day of the conference, just before the conclusion of the deliberations, Sri Samdhong Rinpoche was asked to speak, and he took up the question of defining what we call education.

Sri Samdhong said that he had failed to grasp much of what had been said during the four days of the conference, because he did not know the meaning of the English word 'education'. In any case, he said, he did not know much English. But he knew what is meant by the term *siksha*. And *siksha* in his tradition, according to him, meant the acquisition of the knowledge of *prajna*, *sila* and *samadhi*. In rough translation, these terms mean right intellect, right conduct and right meditation. According to Sri Samdhong, knowledge of these three was education. The learning of various arts, crafts, and various physical techniques and sciences did not come under the term *siksha*. At least in the tradition to which he belonged this learning, he said, was not called 'education'.

Now, if this is the Indian definition of education then it needs serious consideration. If knowledge of *prajna*, *sila* and *samadhi* is what is called 'education' in our tradition, then we have to understand this form of education. We also need to find out how many amongst us are educated in this sense of education.

Perhaps there are not many Indians who may be called educated on this criterion. There may be only half a percent of Indians who are educated in the practice of *prajna*, *sila* and *samadhi*. Or, there may even be five percent, for all we know. But supposing there are only half a percent Indians who turn out to be educated in this sense of education, even that number may be five to ten times the number of people adept at *prajna*, *sila* and *samadhi* throughout the world. According to our own definition of education, therefore, we may be the most educated people of the world.

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It is possible that knowledge of *prajna*, *sila* and *samadhi* is only one of the various kinds of education known in our tradition. Perhaps what is more commonly recognised as education is the knowledge of correct personal and social conduct, and the ability to earn a living for oneself and one's dependents. If this is our definition of 'education', then some 90 to 95 percent of the Indian people are indeed educated. Viewed from this perspective, some 5 to 7 percent of highly modernised Indians like us may seem rather uneducated. Because, most of us who have gone through the modern systems of education and learning have lost the knowledge of correct personal and social conduct within the Indian context, and have acquired no productive skills appropriate for making a living.

Or, perhaps neither the knowledge of appropriate conduct in one's own social context and the ability to make a living, nor the knowledge of *prajna*, *sila* and *samadhi* conform with our definition of 'education'. Perhaps by 'education' we only mean the capability of reading and writing. We define 'education' to be merely literacy, and on this criterion we find 60 to 80 percent of Indians to be uneducated. But even if we define education in this limited sense, we still have to come to some decision about the type of literacy we wish to impart through what we perceive to be education.

If somebody knows reading and writing in Bhojpuri, then do we take him to be educated or uneducated? Perhaps to us he will seem uneducated. We shall probably say that though he is familiar with letters, yet familiarity with Bhojpuri letters hardly constitutes literacy, and we may insist that to qualify as an educated person, he should know at least *nagari* Hindi.

But then someone may object that knowledge of only Hindi is also not enough. To be called educated, a person must know at least Sanskrit. And, then someone else will say that Sanskrit literacy is hardly education. An educated person must know English, and that too of the Shakespearean variety. Or perhaps knowledge of the English that is taught in Oxford or spoken on the British Broadcasting Corporation broadcasts will alone meet our criterion of education. But at that point, someone may tell us that the days of British English are over. This English is no use in the United States of America. Americans speak a new type of English, and it is the American English that is current in the world today. Then we shall perhaps insist that for an Indian to be properly educated, he must know the American English.

If after a great deal of effort some Indians manage to learn good American English and thus get educated according to our current standards, we may find that by then America itself has lost its preeminence in the world. The future may turn out to be the age of the Germans, or of the Russians. It may even happen that one of the African nations starts dominating the world. Or the Arabs may take the lead. Then, shall we insist that for an Indian to be educated, he must be literate in the language of whoever happen to look like the current masters of the world?

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The attempt at imitating the world and following every passing fad can hardly lead us anywhere. We shall have no options in the world till we evolve a conceptual framework of our own, based on an understanding of our own *chitta* and *kala*. Such a framework will at least provide us with a basis for discriminating between right and wrong, and between what may be useful for us and what is futile. Such a framework will also provide us with some criterion for right conduct and thought. And, it will allow us to define, though tentatively, our way of living and being. We shall thus have some sense of the direction along which we must proceed in order to bring India back into her own.

The conceptual framework we devise now may not last long. Within a few years, such a framework may start looking inadequate, or inappropriate, or even erroneous. We may have to revise or even completely recast it in, say, just five years. But any conceptual framework can only be a temporary guide to action. All such frameworks are, after all, human constructs. These are not meant to be unchangeable and indestructible.

Conceptual systems devised by man do get revised, changed and even thrown overboard. Basic axioms and laws of even physical sciences keep changing, fundamental principles of humanities and social sciences are of course revised every so often. There is nothing unchanging in any of this. And, if there is something of the ultimate reality, of the absolute truth, in the conceptual frameworks we devise, then that absolute in any case remains unaffected by the changes we make in our temporal devices. The business of the world runs on the basis of temporary and changeable conceptual frameworks, which provide nothing more than useful guidelines for immediate action. Some such temporary but usable conceptual framework of our understanding of the Indian *chitta* and *kala* is what we need to create for ourselves.

We shall ourselves have to make the effort to construct this conceptual basis for Indian thought and action in the modern times. Others can hardly help us in this. They cannot possibly devise for us a conceptual structure that will be in consonance with our *chitta* and *kala*. No outsiders could perform this task for us, even if they had wanted to. How can any outsider look into the *chitta* and *kala* of another people, and present them with a meaningful understanding of themselves?

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The effort to construct a framework for Indian thought and action in the modern world and in the present times is not to be confused with the search for the ultimate, the *sanatana* truth of India. That, of course, is a long and perhaps unending search. But it is not the ultimate truth that we need immediately. We only need some basis from which to start asking the appropriate questions. And, when we start asking those questions, the answers will also begin to emerge. Or, perhaps there will never be any final answers. But the fact of having raised the right questions would have provided us with some direction to the right path. At least the confusion that prevails regarding right conduct and thought, even in the ordinary day-to-day situations, will get cleared.

In a fascinating context of the Valmiki *Ramayana*, Sita questions Sri Rama about the violent tendencies that she discerns arising in him.[2] As Sri Rama leaves Chitrakuta and proceeds deeper into the forest, he and Lakshmana start flaunting their weapons and their physical prowess in a rather conspicuous manner. Noticing this, Sita warns Sri Rama against the warlike inclinations that the possession of weapons invariably generates. 'As contact with fire works changes in a piece of wood,' she says, 'so the carrying of arms works alteration in the mind of him who carries them.' And then she goes on to question the propriety of their bearing arms in the forest, where they were supposed to be leading an ascetic life:

> The bearing of arms and retirement to the forest, practice of war and the exercise of asceticism are opposed to each other; let us therefore honour the moral code that pertains to the peace. Murderous thoughts, inspired by desire for

> gain, are born of the handling of weapons. When thou does return to Ayodhya, thou will be able to take up the duties of a warrior once more. The joy of my mother and father-in-law will be complete, if during the renunciation of thy kingdom, thou dost lead the life of an ascetic...

Sri Rama did reply to the questions Sita raised about his warlike demeanor in the forest. But it is the questioning that is important. Not so much the answers. What is important is to keep raising questions about human conduct in various situations, not necessarily to arrive at final prescriptions.

In the same vein of raising questions without insisting on any final answers, there is a dialogue between Bhrigu and Bharadvaja in the *Santi Parva* of *Mahabharata*, which is also reproduced almost in the same form in the *Narada Purana.*[3] Bhrigu initiates the dialogue with his teaching that after creating the humans and other beings, Brahman classified the former into four different *varnas*. Bharadvaja asks for the basis of this differentiation:

> (You say) that one *varna* in the four fold division of men is different from the other. What is the criterion thereof? Sweat, urine, faecal matter, phlegm, bile and blood circulate within everyone. Then on what basis is the *varna* divided?

Bhrigu answers that originally there was no distinction among the people. At the beginning, all were of the same *varna.* But with the passing of time, they began to differentiate into different *varnas*, according to their *karmas*. But Bharadvaja persists with his questioning. He wants to know how an individual becomes a Brahmana, a Kshatriya, a Vaisya or a Sudra. Bhrigu says that it is the *karmas* and the qualities of an individual that determine his *varna.* And, so the dialogue goes on.

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Here, as in the *Ramayana* context above, there are no final answers that the text provides. Perhaps this way of continuous questioning is the Indian way. To keep asking questions about personal and social conduct, and about the appropriate modes of social organisation, to keep meditating about these issues, and to keep finding provisional answers in various contexts—this way of continuous awareness and continuous reflection is perhaps the essence of the Indian way of life. We have somehow lost this habit of constant questioning and the courage to question. If we only start raising those questions again, we may regain some anchorage in our *chitta* and *kala*.

IV

To form a comprehension of the *chitta* and *kala* of India, we should probably begin with those aspects of the ancient Indian literature which seem to form the basis for all the rest. For example, there is the story of the creation and unfolding of the universe, which is found with slight variation in most of the *Puranas*. This story seems to have a direct bearing on Indian consciousness, and Indian understanding of the universe and its unfolding in time.

The story of creation that the *Puranas* recount is extremely powerful in itself. In bare essentials, according to this story, the creation begins with the intense effort, the *tapas*, and the determination, the *samkalpa*, of Brahman. The universe once created passes through a number of cycles of growth and decay, and at the end is drawn back into Brahman. This cycle of creation of the universe from Brahman and its disappearance into Him is repeated again and again according to the predefined flow of time. Within this large cycle, there are a number of shorter cycles, at the end of each of which the universe gets destroyed, and created again at the beginning of the next. Thus the universe keeps on passing through repeated cycles of creation and destruction, and there are series of cycles within cycles.

The terms ‘creation’ and ‘destruction’ are probably not wholly appropriate in this context. Because, at the time of creation, it is not something external to Him that Brahman creates. He only manifests Himself in the varied forms of the universe, and at the end He merely contracts those manifestations into Himself, and thus there is in reality nothing that gets created or destroyed. The universe, in a sense, is a mere play of Brahman, a cosmic game of repeated expansion and contraction of the ultimate essence of the universe. But it is a game that is played according to well defined cycles of time. The universe is play, but the play is not arbitrary. Even Brahman is governed by *kala*. He manifests and contracts according to a definite flow of time that even He cannot transcend.

Every Indian is probably aware of this Indian view of the universe as the play of Brahman. Every Indian is also aware of the supremacy of *kala* in this play. Many Indians may not know the very detailed arithmetic of the various cycles of time that is given in the *Puranas*. But the thought that the universe is a play that had no beginning and will have no end, and that this play of Brahman proceeds according to the inexorable flow of *kala*, is deeply etched on the *chitta* of the people of India.

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According to the *Puranas*, in these cycles of creation and decay of the universe, the basic unit is that of *chaturyuga*. Every new cycle begins with *Krita yuga*. This first *yuga* of creation is the period of bliss. In the *Krita*, the *jeeva*, the being, is not yet much differentiated from Brahman. There is, of course, yet no differentiation at all between one being and another. Amongst human beings, there is only one *varna*. In fact the concept of *varna* has probably not yet arisen.

In the *Krita*, life is simple and easy. There is no complexity anywhere. Complicating phenomena, like *mada*, *moha*, *lobha* and *ahankara*—forgetfulness, attachment, greed and egotism respectively, in rough translation—have not yet manifested themselves. There is no *kama*, sexual desire, either. Procreation takes place merely through the wish, the *samkalpa*. The needs of life are rather few. No special effort needs to be made for sustaining life. There is something called *madhu*, which is abundantly available. Everyone lives on *madhu*. And, this *madhu* is self-generated. *Madhu* is not the honey made through the efforts of the bees. No effort is involved in making or collecting it. In this simple blissful state of life, even knowledge is not required. Therefore, there is no *Veda* yet in the *Krita yuga*.

This state of bliss lasts for a very long time. According to the calculations of the *Puranas*, the length of the *Krita yuga* is 17,28,000 years. But with the passage of time, the universe starts getting more and more complex. The innate order starts getting disturbed. *Dharma* starts getting weakened. And, towards the end of *Krita*, the creator has to take birth on earth in various forms to re-establish the *dharma*.

Several *avataras* of Vishnu, the aspect of the Brahman charged with the maintenance of the universe, take place in the *Krita*, and the cycle of decay and re-establishment of *dharma*, through the direct intervention of Vishnu, gets repeated several times already in *Krita*. But at the end of every cycle of decay of *dharma* and its re-establishment, the universe is left in a state of higher complexity. The *dharma* is restored by the *avatara*, but the original innate simplicity of life does not return. The universe moves farther away from the original bliss. While the order of life is restored, life moves to a lower level. And, through these cyclical movements, each leading to a somewhat lower level of existence, the *Krita yuga* finally comes to an end.

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At the beginning of the next *yuga*, the *Treta*, the universe is no longer as simple and straightforward as it was in the *Krita*. According to the *Puranas*, *dharma*, as symbolized by a bull, which stood on all its four feet to securely support the earth during the *Krita*, is left with only three feet in the *Treta yuga*. In this state of relative instability, man requires knowledge and also some administrative authority, in order to sustain *dharma*. That is why man is provided with a *Veda* and a king at the beginning of *Treta*. This is also the time when *mada*, *moha*, *lobha* and *ahankara*, etc., appear for the first time. But at the beginning of *Treta* these frailties of the human mind are as yet only in their nascent state, and thus can be controlled relatively easily.

In *Treta* the needs of life start multiplying. Life can no more be lived now on mere *madhu*. But there is no agriculture yet. Some cereals grow without any ploughing and sowing, etc. These cereals and the fruits of a few varieties of self-growing trees suffice for the maintenance of life. There are not many varieties of trees and vegetation yet. Differentiation has not yet gone that far.

In this *yuga* of limited needs and requirements, man starts learning some skills and acquiring a few crafts and techniques. Some skill and technique are required for the gathering of cereals and fruits, even if these grow on their own without any effort. At this stage, man also starts forming homes, *gramas* and cities. For these human settlements, some more skills, crafts and techniques are called forth.

With increasing complexity of the universe, differentiation sets in. In *Treta* man is divided into three *varnas*. Brahmana, Kshatriya, and Vaisya *varnas* are formed in the *Treta*. But there are no Sudras yet.

In spite of this differentiation and division, communication between various forms of life is not yet obstructed. Dialogue between man and other creatures is still possible. The events described in the Valmiki *Ramayana* happen towards the end of *Treta*. In the *Ramayana*, Sri Rama is seen communicating with facility with the birds of the forest, and with various animals. He calls upon the *vanaras* and *bhalus*, probably meaning monkeys and bears, etc., to help him in defeating the great scholar and warrior Ravana. The story of *Ramayana* probably indicates that till the end of *Treta* communication between man and other creatures had not stopped. There was differentiation between the various forms of life, but it was not so deep as to foreclose all possibilities of contact and dialogue.

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Treta also lasts a very long time. But the duration of *Treta* is only three fourths that of the *Krita*. According to some texts, *Treta* ends with the departure of Sri Rama from earthly existence. And, then the third *yuga*, the *Dvapara* begins. What is known as history in the Indian perception also seems to begin with *Dvapara*. In *Dvapara* the universe has moved very far from the easy simplicity of the *Krita*. All living beings and all phenomena start getting sharply differentiated. The one *Veda* of *Treta* now gets divided into four. And then, even these four acquire many branches. It is in this *yuga* that various arts, skills and crafts start appearing. Knowledge gets divided and subdivided, and numerous *sastras* come into being.

In the complex universe of *Dvapara* man needs a variety of skills and techniques in order to live. So, a large number of technologies and sciences start evolving. Agriculture also does not remain simple any more. Growing of cereals now requires a number of complex operations and great skill. Perhaps, it is to bear the multiplicity of newly evolving arts and crafts that the Sudra as a *varna* comes into existence for the first time at the end of *Treta* or the beginning of *Dvapara*.[4] *Dvapara* thus acquires the full complement of four *varna*s.

Dvapara yuga in a sense is the *yuga* of the kings. Some present day scholars even reckon the beginning of *Dvapara* from the time of the ascendance of Sri Rama to the throne of Ayodhya. The multitude of stories about the kings that is found in the *Santi Parva* of the *Mahabharata*, and in the other *Puranas*, seem to belong to the *Dvapara yuga*. And, the atmosphere that prevails in these stories of the kings is quite different from the atmosphere of the *Ramayana*. The *Ramayana* period is clearly the period of the dominance of *dharma*. But the kings of *Dvapara* seem to be always immersed in Kshatriya-like excitement and anger. There is said to be unbounded jealousy and greed in them. Unnecessary cruelty seems to be an integral part of their mental makeup. Perhaps that is why the *Puranas* believe that *dharma* is left with only two feet in the *Dvapara*. Founded on that unstable basis *dharmic* life keeps on getting disrupted during the *Dvapara yuga*, which is to last for half the duration of *Krita*.

In this atmosphere of the decay of *dharma*, and jealousy, greed and cruelty of the Kshatriyas, Prithvi, the goddess earth, finally approaches Vishnu with the request that He should now relieve her of this unbearable burden of creation gone astray. Then Vishnu takes birth in the form of Sri Krishna and Sri Balarama. Other gods and goddesses also appear on earth in various forms. And, after all this grand preparation, the *Mahabharata* war happens. It is commonly believed that in the war of *Mahabharata*, *dharma* won over a-*dharma*. But in spite of this victory of *dharma*, the coming of the *Kali yuga* cannot be stopped.

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Within a few years of the culmination of the *Mahabharata* war, Sri Krishna and the whole of his *Yadava vamsa* come to their end. The event of the extermination of the *Yadava vamsa* is taken to be the beginning of the fourth *yuga*, the *Kali yuga*. Learning of the departure of Sri Krishna from the earth, the Pandavas also depart for the Himalaya, along with Draupadi, to end their lives. Thus all the protagonists of the *Mahabharata* war are gone. Only Parikshit, the grandson of the Pandavas, who miraculously survives the destruction wrought by the *Mahabharata* war, is left behind. After a short time he too dies, of snake-bite. Parikshit is said to be the first king of the *Kali yuga*.

It is said that the *Mahabharata* war was fought 36 years before the beginning of *Kali*. According to the commonly accepted modern scholarly calculations, the current year is the 5094th year of *Kali* [A.D. 1991]. This is only the early phase of *Kali yuga*. Like the other three *yugas*, the *Kali yuga* is also to last a long time, even though the duration of *Kali* is only one fourth that of

Krita. The total duration of *Kali* is believed to be of 4,32,000 years.

The main characteristic of the *Kali yuga* is that in this *yuga*, *dharma* stands only on one foot. *Dharma* becomes rather unstable in *Dvapara* itself. But, in *Kali* the position of *dharma* becomes precarious. In this *yuga* of wavering *dharma*, creation has gone much beyond the simple bliss of *Krita*. Complexity, division and differentiation are the norm. Mere living becomes a difficult art. Life loses the natural ease and felicity of the earlier *yugas*.

But in this difficult *yuga*, the path of *dharma* is made somewhat easier for man. The piety and virtue that accrue only through great *tapas* in the earlier *yugas* can be earned in the *Kali yuga* by simple and ordinary acts of virtue. This is perhaps due to the compassion of the creator for those caught in the complexity of *Kali yuga*. This compassion generates a continuing process of balance between the state of man in the four *yugas*, at least as regards his relationship with Brahman. This can perhaps also be seen as the process of continuous balancing between the sacred and mundane attitudes of man.

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This, in short, is the Indian story of creation. Most Indians form their view of the universe and their place in it on the basis of this story. The details of this story and the style of narration vary from *Purana* to *Purana*. But the basic facts seem unvarying and are clearly etched in all renderings of this story. And according to this basic Indian understanding of creation and its unfolding, the universe after creation constantly moves towards lower and lower levels of existence and being. The various arts and crafts, various sciences and technologies, and various kinds of knowledge arise at relatively later stages of the unfolding of the universe. All these help to make life livable in a universe that has degraded to a high level of complexity. But none of these arts, crafts, sciences and technologies can change the downward direction of the universe.

The natural tendency of the universe to keep moving towards more and more complexity, more and more differentiation and division, and thus farther and farther away from the state of natural simplicity and bliss, cannot be halted by even the *avataras* or the creator Himself. Such *avataras* arrive again and again, but even they are able to restore only a degree of balance in the naturally disturbed state of the universe. They, too, cannot reverse the march. That is why in spite of all the efforts of Sri Krishna, and His massive and far-reaching intervention in the form of the *Mahabharata* war, the onset of *Kali yuga* can neither be stopped, nor delayed. But without the cleaning up of the burdens of *Dvapara*, that the great *Mahabharata* war achieved, the coming of the *Kali* might have been too much to bear for mere man.

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The major lesson of the Indian story of creation is of the smallness of man and his efforts in the vast drama of the universe that has no beginning and no end. The cosmic play of creation unfolds on a very large scale, in time cycles of huge dimensions. In that large expanse of time and universe, neither the man living in the simple bliss of *Krita*, nor the man caught in the complexity of *Kali,* has much significance. Simplicity and complexity, bliss and anxiety keep following each other. But the play goes on.

The cycle of *chaturyuga* seems big to us. It takes 43,20,000 years for the universe to pass through this one cycle of *chaturyuga*. But according to the *pauranic* conception, a thousand such cycles, called a *kalpa*, make merely one day of Brahma, the godhead representing Brahman as the creator. After a day lasting a *kalpa*, Brahma rests for the night, which too is a *kalpa* long. And, then another *kalpa* and another cycle of a thousand *chaturyuga* cycles begins. Three hundred and sixty such days and nights, of a *kalpa* each, make a year of Brahma. Brahma lives a life of a hundred years. And, then another Brahma arrives and the play starts all over again. In these cosmic cycles of the inexorable *kala*, what is the significance of mere man living his momentary life in some tiny corner of the universe?

V

The peculiarly Indian awareness of the insignificance of man and his efforts in the unending flow of *kala* is, however, not in consonance with modernity. The belief that in every new cycle the universe, from the moment of its creation, starts declining towards a lower and lower state is also incompatible with modern consciousness. And to look upon various arts and crafts, and sciences and technologies, etc., merely as temporary human artifacts required to sustain life in a constantly decaying state of the universe goes completely counter to the modern view of sciences and technologies, and of human capabilities in general. According to the world view of modernity, man, through his efforts, his sciences and technologies, his arts and crafts, and his various other capabilities, keeps on refining the world, lifting it higher and higher, making it better and better, and moulding it more and more into the image of heaven.

If the Indian understanding of the unfolding of the universe, and the place of man and his efforts in it, is so contrary to the concepts of modernity, then this contrariness has to be seriously pondered over. The structures that we wish to implant in India and the processes of development that we want to initiate can take root here, only if they seem compatible with the Indian view of the universe, with the Indian *chitta* and *kala*. Structures and processes that are contrary to the picture of the universe and its unfolding etched on the Indian mind are unlikely to find much response in India. At least the people of India, those who are still basically anchored in their own *chitta* and *kala*, are unlikely to participate in any efforts that seem essentially alien to the Indian comprehension of the universe.

We must, therefore, work out what the thoughts and ideas ingrained in the Indian consciousness imply in practice. What structures and processes seem right from the perspective of Indian *chitta* and *kala*? What sort of life seems worth living and what sort of efforts worth making from that perspective? Before meditating afresh on such temporal structures and models, however, we shall have to comprehend and come to terms with some of the major aspects of the Indian ways of organising the mundane day-to-day world of social and physical reality.

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Differentiation between what is called the *para vidya* (knowledge of the sacred), and the *apara vidya* (knowledge of the mundane), is one such aspect of the Indian ways of organising physical and social reality, which seems to be directly related to the fundamental Indian consciousness, to the Indian *chitta* and *kala*. At some early stage in the Indian tradition, knowledge must have split into these two streams. Knowledge that deals with the unchangeable Brahman beyond the continuously changing temporal world, knowledge that shows the path towards the realisation of Brahman and union with Him, is *para vidya*. And that which deals with the day-to-day problems of temporal life and makes ordinary life in this complex world possible is *apara vidya*. In the Indian tradition, it is believed that *para vidya* is higher than the *apara vidya*. In fact, it is said, that *para vidya* alone is real and the *apara vidya* is merely an illusion.

When this division between *para* and *apara* knowledge occurred in the Indian tradition cannot be said with any certainty. This could not have happened in the *Krita yuga*. Because in that *yuga* no knowledge at all was required. There was no *Veda* in the *Krita*. This division is unlikely to have occurred in *Treta* also. Because there was only one undifferentiated *Veda* at that stage.

This sharp differentiation may, however, have arisen sometime towards the end of *Treta* and the beginning of *Dvapara*, when a variety of skills and crafts started appearing on the earth to help man live with the increasing complexity of the universe.

It is commonly believed that the four *Vedas*, along with their various branches and connected *Brahmanas*, *Upanishadas*, etc., form the repository of *para vidya*. And, the *Puranas* and *Itihasas*, etc., as also the various canonical texts of different sciences and crafts like the *Ayurveda*, *Jyotisha*, etc., deal with the *apara vidya*. In reality, however, the canonical texts of various disciplines do not differentiate between *para vidya* and *apara vidya* as sharply as is commonly believed.

It is probably true that the *Upanishadas* deal with nothing but *para vidya*. But, the same can hardly be said about the *Vedas*. In a large number of contexts the *Vedas* seem to be dealing with such mundane subjects as would fall only under the category of *apara vidya*. On the other hand, there are extensive discussions in the *Puranas* about the attributes of Brahman and about the possible modes of realising Him, which are the subject of *para vidya*. Then there are disciplines like *vyakarana*, grammar, which of necessity belong to both *para* and *apara*, because *vyakarana* is needed for the proper communication of either kind of knowledge. For the same reason, *Jyotisha sastra*, the science of the motion of stars and planets and the art of determining time and place, must also belong to both the *para* and *apara* streams to some extent. But even in the texts of purely mundane disciplines, like those of *Ayurveda*, issues related to *para vidya* are discussed, and attempts are made, for example, to perceive the problem of maintenance of health within the context of man's relation with the universe and the Brahman.

In spite of the presence of both streams of knowledge together in almost all canonical texts, the dividing line between *para vidya* and *apara vidya* seems to be etched rather deeply in the minds of the Indian people. On raising the context of the *Puranas* in routine discussion among even the ordinary people, one is likely to be told that these tales and fables are not to be relied upon, and that the *Vedas* alone are true. It seems that the Indian mind has somehow come to believe that all that is connected with *apara vidya* is rather low, and that knowledge of the *para* alone is true knowledge. This consciousness seems to have become an integral part of the Indian mind. And high scholars of Indian literature, who ought to know better, seem to believe even more than the others that the essential Indian concern is only with the *para*, and the great body of *apara* knowledge found in the Indian tradition is of little relevance in understanding India.

This contempt for the *apara vidya* is probably not fundamental to Indian consciousness. Perhaps the original Indian understanding was not that the *apara* is to be shunned. What was perhaps understood and emphasised at an early stage of the evolution of Indian thought was that while dealing with *apara*, while living within the complexity of the world, one should not forget that there is a simple undifferentiated reality behind this seeming complexity, that there is the unchangeable Brahman beyond this ever-changing mundane world. What the Indians realised was the imperative need to keep the awareness of the *para*, of the ultimate reality, intact while going through the complex routine of daily life. What they emphasised was the need to regulate the mundane in the light of the Indian understanding of the ultimate unity of the universe, to keep the *apara vidya* informed of the *para*.

With the passage of time, this emphasis on regulating the *apara vidya* through our understanding of the *para vidya* turned into a contempt for the *apara*. How and when this happened is a question to which we need to give very serious thought. And, indeed, we have to find some acceptable interpretation of the appropriate relationship between *para vidya* and *apara vidya* within the larger Indian understanding of the processes of the creation and the unfolding of the universe, and the inexorable movement of *kala*.

There is evidently an imbalance in our attitudes towards *para vidya* and *apara vidya*, which has to be somehow remedied. It is possible that this imbalance is not of recent creation. In the world of scholarship, this imbalance may have arisen rather early. It is the usual tendency of scholarship to emphasise the abstract and the formal over the concrete and the contextual reality of day-to-day living. This normal scholarly preoccupation with the abstract may have got incorporated in basic Indian literature over its long history. Or, perhaps it was felt that the details of ordinary living cannot form the subject-matter of high literature.[5] Or, it may be that in our mentally and spiritually depressed state, we have been too obsessed with the *para* knowledge of India, and consequently have failed to seriously search for the texts of *apara* learning. Therefore, this seeming imbalance of Indian literature and Indian thought may merely be a consequence of our lopsided viewing.

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Whatever may be the causes of the imbalance in our attitude towards *para vidya* and *apara vidya*, it cannot be denied that the available literature of Indian civilisation and the commonly agreed understanding of the *chitta* and *kala* of India today seem abnormally skewed towards the *para*. This imbalance has affected our thinking on numerous other subjects and issues. For instance, take our understanding of the *varna vyavastha*. In interpreting this *vyavastha*, we have somehow assumed that the *varna*s connected with textual practices and rituals of the *para vidya* are higher, and those involved in the *apara* are lower. Closeness of association with what are defined to be *para* practices becomes the criterion for determining the status of a *varna* and evolving a hierarchy between them. Thus the Brahmanas associated with the recitation and study of the *Vedas* become the highest, and the Sudras engaged in the practice of the arts and crafts of ordinary living become the lowest.

This hierarchy may not in reality be a fundamental aspect of classical Indian thought. There is some discussion on this subject in the *Puranas*. We have already referred to the dialogue in the *Mahabharata* and the *Narada Purana*, where Bharadvaja questions Bhrigu on the rationale of the *varna* hierarchy. Mahatma Gandhi also believed that it cannot be right to place one *varna* above the other. Around 1920, Gandhiji wrote and spoke a great deal on this subject. But even his efforts were not sufficient to restore an appropriate balance in our current thinking on the *varna* Vyavastha.

The issue of the hierarchy of the *varna*s is not, however, a closed question in the Indian tradition. During the last two thousand years, there have occurred numerous debates on this question within the Indian tradition. And, in practical social life such a formulation of high and low could not have survived anyway. The concepts of the irreconcilability of *para vidya* and *apara vidya*, and the corresponding asymmetry between the Brahmana and the Sudra, could never have meant much in actual practice in any healthily functioning social organisation. The canonical and fundamental texts of Indian literature also do not show this degree of imbalance on the question of the relative status of *para* and *apara vidya*, and correspondingly that of the Brahmana and the Sudra. The imbalance seems to have arisen mainly through the interpretations of the canonical texts that have been made from time to time.

The *Purusha Sukta* indeed states that the Sudras appeared from the feet of Brahman, the Vaisyas from the thighs, the

Kshatriyas from the arms and the Brahmanas from the head. But this does not necessarily define a hierarchy between the *varnas*. The *Sukta* is a statement of the identity of the microcosm and the macrocosm. It presents the world as an extension of the body of Brahman. In its cryptic Vedic style, the *Sukta* informs us that the creation is a manifestation of Brahman. It is His extension, His play. The *Sukta* also probably recounts the variety of tasks that have to be performed in the world that Brahman creates. But nowhere in the *Purusha Sukta* is it said that some of these tasks, and consequently the performers of those tasks, are better than others. That the functions of the head are higher than those of the feet could only be a matter of a somewhat literal interpretation that came later. At another time, such interpretations can even get reversed. After all, it is only on his feet that a man stands securely on earth. It is only when the feet are stable that the head and hands play their parts. When the feet are not securely placed on the earth, nothing else remains secure either.

Incidentally, the *Purusha Sukta* does not even imply that all four *varnas* came into existence simultaneously at the beginning of creation. The *Sukta* does not give the story of creation and its unfolding—it only explains, through the analogy of the body of Brahman, an already manifest and differentiated universe. In fact, as we have seen earlier, the *pauranic* texts seem to suggest that at the beginning there was only one *varna*, and it is only later, as the need for newer and newer human capacities started arising, that the *varnas* divided, first into two and then into three and four.

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Like the hierarchy of *varnas*, there is also the hierarchy of the *karmas*, of actions, in our present day Indian consciousness. And this hierarchy of *karmas* also seems to have arisen from the ideas of the superiority of the *para* over the *apara*. Now, the concept that every action has an unalterable consequence is a fundamental aspect of Indian consciousness. As we believe that everything that is created must come to an end, so we believe that every event that happens must have a cause in a previous action. Thus, from the Indian perspective, life and indeed the whole of creation seem like a long sequence of actions and their consequences, with the consequences, leading to further consequences and so on. And all that happens in the world takes place within this interconnected sequence of *karmas*.

Yet this fundamental theory of *karma* seems to have nothing to do with the commonly prevalent ideas about the hierarchy of *karmas*: that some kinds of *karmas* are superior and others are inferior. The idea that, for example, the recitation of the *Vedas* is a high *karma* and weaving of cloth is low does not follow from the *karma* theory. These ideas of high and low *karmas* seem to have arisen out of the imbalance in our perception of the *para vidya* and *apara vidya*.

This belief in a hierarchy of *karmas* has, however, got so deeply ingrained in us that even our major scholars often explain away large scale poverty and hunger as the consequences of the earlier lowly *karmas* of the sufferers. Such interpretations of the *karma* theory have become so mechanical, that even as high a scholar as Sri Brahmananda Saraswati, Sankaracharya of Joshi Math, used to casually state that destitution and poverty are only matters of *karmas*.

But, this is hardly an appropriate interpretation of the *karma* theory. In any case, the theory could not have implied that even the best of our men dismiss all thoughts of compassion for their fellow human beings, and give up all efforts to redress social imbalances.

The meaning of the *karma* theory is perhaps something else. All *karmas*, all actions, are after all the same in themselves. What probably differentiates one *karma* from another is the mental attitude and the sense of concern with which it is performed. It is the mode of performing a *karma* that makes it high or low. If recitation of the *Vedas* is done with concern and attention, then that recitation is a high *karma*.

By the same token if someone cooks food with great attention and care, then that cooking too is a high *karma*. In India, cooking was in fact one of the functions of the Brahmanas. There are Brahmana cooks even today. And, it seems that the recitation of the *Vedas* and the cooking of food are indeed not such different *karmas*. A Brahmana is likely to acquire the same burden of evil *karmas*, whether he recites the *Vedas* without care and attention, with the attitude of somehow completing an uninteresting and thankless task that has been forced upon him, or whether he cooks food with the same attitude and similar lack of attention and care.

The same must hold for all other kinds of *karmas*. There is nothing inherently evil or low in the *karma* of sweeping the floor, or bringing up children, or washing clothes, or making pots, or shoes, or weaving cloth, or looking after cattle, or ploughing and sowing the land. All these *karmas* become high, if performed with care, attention and concern; and become low otherwise. They could not be high or low in themselves.

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There is a *Mahabharata* story that seems highly instructive in this context. Once there was a *rishi*. He sat unmoving, at one place, in deep meditation, for uncountable number of years. One day his meditation was disturbed and he woke up with a start. He found that the excreta of a sparrow had fallen on his head. In great anger, he turned his eyes towards the sparrow, and the bird was at once burnt to ashes. Seeing this, the *rishi* thought that his penance had been accomplished and he had achieved great powers.

He got up from his meditation, and walked up to the nearby habitation. There he knocked on the door of the first dwelling he reached and asked for food. The lady of the house was probably busy with her household chores. It took her some time to open the door and answer the *rishi*'s call. This delay infuriated the *rishi*. When the lady of the house finally opened her door, the *rishi* looked at her with intense anger, just as he had looked at the sparrow. But nothing happened. And, the lady said, with great composure: 'Maharaj, please do not unnecessarily trouble yourself. Give up your anger. After all, I am not that sparrow.'

The *rishi* was stunned. He could not understand how the powers he had acquired through such great penance proved so utterly futile against this ordinary woman. And, how had she, sitting at her home, divined the incident of the sparrow? He wanted to know the secret of her powers. But she referred him to a seller of animal flesh.

The *rishi* was even more surprised. He went to the meat-seller, and the latter told him that the lady against whom he tried to use his powers was performing her household duties with great care and attention. Her housekeeping was in no way inferior to his meditation and penance. And, in any case, the reward of his penance was fully exhausted when he looked at that poor sparrow in such anger. The meat-seller also told the *rishi* that he himself was engaged in the selling of animal flesh, but he performed this task with great care and devotion. All tasks performed with such an attitude are equally great. What matters is to do your task well, with concern and care. It does not matter whether what you do is penance and meditation, or merely house-keeping, or even the selling of animal flesh.

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This *Mahabharata* story presents one interpretation of the theory of *karma*. There may be several other interpretations in Indian literature. Similarly there would be numerous interpretations of *para vidya* and *apara vidya*, and also of the *varna vyavastha*. Comprehending and appreciating these various interpretations, and working out a new interpretation that falls within the ancient tradition and is yet capable of being related to the modern contexts, is perhaps the paramount task of Indian scholarship. This continuous reinterpretation and renewal of the tradition, continuous meditation on the ways of manifesting the Indian *chitta* and *kala* in practical day-to-day life, and the continuous exploration of the Indian way of life in different times and different contexts, is what the *rishis*, *munis* and other great scholars of India have been concerned with through the ages.

VI

There is an episode in the *Vishnu Purana* concerning Maharshi Vyasa, which seems to offer an interesting interpretation of our present *Kali yuga*. It is said that once Vyasa was bathing in a river. At that time some *rishis* came to visit him, and from a distance they saw that the great Vyasa, standing in the river, was clapping his hands and shouting, 'Great is the *Kali yuga*', 'Great are the women of the earth', and 'Great are the Sudras'.

The *rishis* were wonder-struck. Later they asked Vyasa the reason for his loud praise of the *Kali yuga*, the women and the Sudras. Vyasa explained that what had been possible for men in the other three *Yugas* with great effort and penance was easily accessible to them in the *Kali yuga*. In the *Kali yuga*, said Vyasa, man could achieve realisation of the Brahman with merely a little devotion. And, the women and the Sudras could obtain that realisation by merely performing their mundane day-to-day tasks well, with care and concern.

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Vyasa is one of the great *rishis* of India. It is said that in *Dvapara* he divided the one *Veda* into four, and later he divided them into numerous branches. Later still, he composed the *Mahabharata* epic, especially for the edification of the women and the Sudras. In the writing of this epic, Ganesa himself acted as his scribe, because none else could have matched the pace and sophistication of Vyasa's composition. But reflecting on the state of the world after completing his great epic, Vyasa felt a sadness in his heart. He noticed that the women and the Sudras had been deprived of the *Vedas*, and the epic that he had composed for them was full of pain and sorrow. It was a story that provided no solace to the mind, generated no enthusiasm for life, and gave no pleasure.

Then, the great Vyasa, to make up for these deficiencies and with compassion for mankind, composed the *Puranas*. Through the *Puranas*, he tried to make the path of devotion and faith in the creator easily available to all. Amongst the *Puranas*, *Srimadbhagavata Purana* seems the most steeped in the faith and devotion that Vyasa wished to propagate. *Srimadbhagavata Purana*, composed on the advice of Narada Muni, describes events in the life of Vasudeva Srikrishna. And, this *Purana* is today probably the main source of the non-scholarly Indian *grihastha*'s acquaintance with the ancient Indian literature.

The great compassion of Vyasa, which propelled him to compose the *Puranas*, his feeling of concern and care for man—caught in the complexity of the universe and pulled farther and farther away from his creator by the flow of time—is transparently reflected in the above episode from the *Vishnu Purana*, where he proclaims the *Kali yuga* to be the *yuga* of the women and the Sudras. This interpretation of the *Kali yuga* seems highly significant. It is possible that as there is only one *varna* in the *Krita yuga*, so in the *Kali yuga* too, only one *varna* remains: that of the Sudras. Perhaps in the *Kali yuga*, everyone turns into a Sudra. Or, perhaps, in this *yuga* of the ascendance of the *apara vidya*, the role of the women and the Sudras, the major practitioners of the *apara vidya*, of the practical arts and crafts of sustaining life, becomes the most valuable. In our own times, Mahatma Gandhi expressed the same thought, when he insisted that in this *yuga* everyone must become a Sudra.

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There is, of course, no point in asking whether Vyasa's interpretation of the *Kali yuga* is correct or not. All interpretations keep changing with time and the context. What matters, perhaps, is not the accuracy of an interpretation, but the sense of compassion that the interpreter feels for his fellow beings. It is this compassion, the concern for the state of all beings and respect for their efforts, even if these seem insignificant on the cosmic canvas, which makes a particular interpretation valuable. Only in the light of such compassion and concern can we hope to make any meaningful new interpretations of the Indian *chitta* and *kala*. Contemporary interpretation, flowing from such transparent compassion and concern alone, can have any chance of forming a secure basis for the re-establishment of the Indian way of life today. Interpretations that lack compassion, like the one about poverty and destitution being the result of one's own earlier *karmas*, are not going to be of much help in such an effort.

Along with the deep sense of compassion for fellow beings, there must also be an abiding faith in the inherent soundness and strength of the Indian tradition. There are many amongst us who believe that Indian civilisation was indeed great in some distant past, but now its days are gone. Many of us sincerely believe that with the rise of modernity, Indian *chitta* and *kala* and Indian understanding of creation and unfolding of the universe have lost all significance, and there is no use any more of deliberating upon such matters. Even someone like Sri Jayendra Saraswati, Sankaracharya of Kanchi Kamakoti Peetham, seems to suggest that there was a time when we were great, and the memory of that time is valuable; but there is nothing that can be said with any assurance about the relevance and place of Indian consciousness in the present.

What is of significance, however, is always the present. If we wish to affirm the validity of Indian consciousness, of Indian *chitta* and *kala*, we can do so only by establishing the Indian way of life in the present-day world. And, this re-assertion of India in the present context is the major task today which Indian scholarship, Indian politics, Indian sciences and technologies, Indian arts, crafts and other diverse skills must accomplish.

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It is conceivable that some sections of the Indian people do not subscribe to their traditional understanding of creation and unfolding of the universe; and probably some of them even believe that they have no relationship with the Indian *chitta* and *kala*.

There may also be Indians, especially among the Indian Muslims, Christians and Parsis, who do not believe that there are any such times as the *Kali yuga*, or any cycles of *kala* as the *chaturyuga* and *kalpa*, etc. Someone like Periyar Ramaswami Nayakar, and his followers, may even deny the validity of these *kala* cycles. In different parts of India, there may be many other people who do not believe in any of the concepts that seem to be fundamental to Indian consciousness. But, the differences in the beliefs of all these people may not be as large as they are made out to be. And, many of those who claim to have no faith in the *Puranas* often have their own *Jati Puranas*. The latter, in their essential conception, are not much different from the *Puranas* written by Vyasa.

This at least can be said about all Indians, even about the ordinary Christians of India: their *chitta* and *kala* have little in common with modern European civilisation. They are all equally alien in the world of European modernity. In fact, except for at most half a percent of Indians, the rest of India has precious little to do with European modernity. Whatever else may be etched on the minds of these 99.5 percent of Indians, there is nothing there that even remotely resembles the consciousness of the modern West, or even that of ancient Greece or Rome.

But in the unbounded flow of modernity, almost every Indian seems to have lost the ability to express his innate consciousness even in small ways. Even his festivals, that in a way reminded him of his *kala*, and gave him, till recently, some little pleasure in his otherwise impoverished drab life, and even the most vital of his rituals, those of birth, marriage and death, that gave him a sense of belonging to the universe of his *chitta* and *kala*, have fallen by the wayside. Most Indians, of course, still perform these festivals and rituals; but these have been so reviled, that there is little grace left in their mechanical and often unbelieving performance. Not surprisingly, the festivals give us little pleasure and the rituals provide no solace. We have lost our identity, our anchorage in our civilisation. And, this loss of identity afflicts us all. This is a pain that practically all Indians, including the Christians, the Muslims and others, have to bear in common.

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We have to find some way out of such a state of rootlessness. We have to somehow find an anchor again in our civilisational consciousness, in our innate *chitta* and *kala*. Some four or five years ago, the Indira Gandhi Memorial Trust had organised an international gathering of scholars to deliberate on the fundamental questions of Indian identity. In that gathering—it is reported—a European scholar had suggested that the only way out for India was in her taking to Christianity in a big way.

This, of course, is not an entirely new thought. For at least the last two hundred years, the Christianisation of India has been seriously thought of as an option for taking India out of what had seemed to many, especially in Britain, as the morass of her civilisational memory; giving her a more easily understandable identity. There have also been large scale governmental efforts to help in this direction. And the so-called Westernisation of India, which even the governments of independent India have been pursuing with such seeming vigour, is not very different from India's Christianisation.

If all these efforts had led to a thoroughgoing Westernisation of the Indian mind so that the people of India on their own could start associating themselves with the late twentieth and the twenty-first centuries of the West, then that perhaps would have been some sort of a solution of India's problems. If that change of Indian civilisational consciousness had taken place, then the ordinary Indian today would think and behave more or less like the ordinary man of Europe and America, and his priorities and seekings would have become similar.

Indians would then have also lost the peculiarly Indian belief, which even the most ordinary of the ordinary Indians harbours in his heart: that he is a part of the ultimate Brahman, and by virtue of this relationship with Brahman, he too is completely free and sovereign in himself. In place of this feeling of freedom and sovereignty, that so exasperates those who seek to administer or reform India, the Indian too would have then acquired the Western man's innate sense of total subordination to the prevailing system, a subordination of the mind that man in the West has always displayed irrespective of whatever the system was in any particular Western phase: whether a despotic feudal oligarchy, a slave society like that of ancient Greece and Rome, a society of *laissez faire*, or of Marxist communism, or the currently ascendant society of market forces.

Notwithstanding the prosperity and affluence that the West has gained during the last forty or fifty years, the innate consciousness of the Western man seems to have remained one of total subordination to the given system. At the level of the mind, he is still very much the slave of the imaginary Republic of Plato, and the very real empire of Rome. The consciousness of the

Indian people would have also been moulded into the same state of subordination as that of the Western man, if the attempts of the last two hundred years to Westernise or Christianise India had reached anywhere. And, even such slavery of the mind might have been a way out of the present Indian drift.

But perhaps such simple solutions to civilisational problems are well nigh impossible. It does not seem to be given to man to completely erase his civilisational consciousness and establish a new universe of the mind. Not even conquerors are able to so metamorphose the mind of the conquered. The only way such metamorphosis can be achieved is by completely destroying the conquered civilisation, eliminating every single individual, and starting afresh with an imported population. This is what occurred, more or less, in the Americas and Australia. India has so far been saved this denouement at the hands of Europe, though not for any lack of trying.

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If the Westernisation of India is not possible, then we shall have to revert to our own civilisational moorings. We shall have to come back into our own *chitta* and *kala*. Ridding ourselves of the Western ways of thought and action, we shall have to start understanding ourselves and the world from our own civilisational perspective. This effort to understand ourselves and our *kala* will probably be similar to the way Vyasa, in his *Mahabharata*, surveys the complete story of Indian civilisation, explores its diverse seekings, its ways of thought and action, and then, shows a path that is appropriate to the *Kali yuga*. Or, perhaps it will be like the way Srikrishna offers Arjuna a glimpse of the universe and on the basis of that view of the world, the *visvarupa darsana*, shows him the way out of his dilemma. In any case, we shall have to form a view of the world and the present time, from our own perspective, before we can find a path of our own.

This task of having a new *visvarupa darsana* for ourselves, and searching for a path of action in the light of that *darsana*, has to be performed by all those who are closely connected with the Indian tradition and have a deep sense of respect for it. It is, however, important that those involved in this exercise are motivated by compassion for fellow beings. And, for that to happen, the beliefs of the people of India and their ways of thought and action will have to be given priority over anything that is written in the texts.

To be tied mindlessly to the words of texts has never been the Indian way. The Indian *rishis* never believed themselves to be bound by any text. It is true that the *rishis* of India do not often negate or denigrate the text. Their preferred style is that of starting with the text and then interpreting it in newer and newer ways. That is how Vyasa could stand in the river and loudly proclaim the greatness of the women and the Sudras in the *Kali yuga*.

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The direction of a civilisation is determined by meditating on its innate consciousness and its sense of the creation and unfolding of the universe. And that probably is the task of the *rishis*. But it is the ordinary *grihasthas* who carry it forward in the determined direction. And *grihasthas* are all those who are engaged in the mundane routine of life: those who are adept at scholarship, or are skilled in cooking, or are engaged in agriculture, or in various arts and crafts, or those who are familiar with the modern sciences and technologies, or are running modern industry or trade, or those who have learnt the art of running the State, and its administrative and coercive apparatus. All *grihasthas* are collectively charged with the duty of carrying the civilisation along its preferred direction and helping it realise its seekings and aspirations.

Even when the direction is lost and the seekings and aspirations become unclear, the routine of life keeps going on; and therefore, the *grihasthas* have to keep performing their assigned tasks even during such times of drift. They cannot shut off the routine to start meditating on the overall direction that the civilisation may take. Therefore it is ordinarily true that the politicians, the administrators and the managers, and even the scholars of a civilisation should concentrate on the day-to-day running of society, and not let themselves be distracted by fundamental doubts about the state of the civilisation.

But there are times when the direction that a civilisation is to take is so thoroughly lost and the drift is so acute that the daily routine of life itself becomes meaningless. It seems that today India has reached that situation. This is possibly the nether end of one of those cycles of decay of *dharma* and its re-establishment that keep recurring, according to the Indian conception. At such times the *grihastha* also must help with his skills and energies in finding a new direction and a new equilibrium for his civilisation. The present is a time of crisis for the Indian civilisation.

And, we have to shepherd all our energies, skills and capabilities towards making a single-minded effort for getting out of the crisis.

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Once we seriously get down to the task, it may not turn out to be too difficult to find a new direction for the Indian civilisation. To redefine our seekings and aspirations, our ways of thought and action, in a form that is appropriate and effective in today's world may not be too hard a task after all. Such re-assertions and re-definitions of civilisational thrust are not uncommon in world history. For every civilisation, there comes a time when the people of that civilisation have to remind themselves of their fundamental civilisational consciousness and their understanding of the universe and of Time. From the basis of that recollection of the past, they then define the path for their future. Many civilisations of the world have undergone such self-appraisal and self-renewal at different times. In our long history, many times we must have engaged in this recollection and re-assertion of the *chitta* and *kala* of India. We need to undertake such an exploration into ourselves once again.

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1. During his remarks at the bicentennial celebrations at the Smithsonian Institution, Washington DC (U.S.A.) on 17 November 1965, Claude Levi-Strauss explained the nature of anthropology in the following words (*Current Anthropology*, Vol. 7, No.2, April 1966, pp. 126):

> Anthropology is not a dispassionate science like astronomy, which springs from the contemplation of things at a distance. It is the outcome of a historical process which has made the larger part of mankind subservient to the other, and during which millions of innocent human beings have had their resources plundered and their institutions and beliefs destroyed, whilst they themselves were ruthlessly killed, thrown into bondage, and contaminated by diseases they were unable to resist. Anthropology is daughter to this era of violence: its capacity to assess more objectively the facts pertaining to the human condition reflects, on the epistemological level, a state of affairs in which one part of mankind treated the other as an object.
>
> A situation of this kind cannot be soon forgotten, much less erased. It is not because of its mental endowments that only the Western world has given birth to Anthropology, but rather because exotic cultures, treated by us as mere things, could be studied accordingly, as things. We did not feel concerned by them whereas we cannot help their feeling concerned by us. Between our attitude toward them and their attitude toward us, there is and can be no parity.
>
> Therefore, if native cultures are ever to look at anthropology as a legitimate pursuit and not as a sequel to colonial era or that of economic domination, it cannot suffice for the players simply to change camps while the anthropological game remains the same. Anthropology itself must undergo a deep transformation in order to

> carry on its work among those cultures for whose study it was intended because they lack written record of their history.
>
> Instead of making up for this gap through the application of special methods, the new aim will be to fill it in. When it is practiced by members of the culture which it endeavours to study, anthropology loses its specific nature and becomes rather akin to archaeology, history, and philology. For anthropology is the science of culture as seen from the outside and the first concern of people made aware of their independent existence and originality must be to claim the right to observe themselves, from the inside. Anthropology will survive in a changing world by allowing itself to perish in order to be born again under a new guise.

2. Valmiki Ramayana, Aranya Kanda, Chapter 9&10. The quotations are from *The Ramayana* of Valmiki, tr. Hari Prasad Shastri, Shanti Sadan, London, 1957, Vol. II, pp. 19–20.

3. Mahabharata, Santi Parva, Chapter 188, and Narada Purana, II.43.53-60. The quotations are from The Narada Purana, tr. Ganesha Vasudeo Tagare, Motilal Banarasi Dass, Delhi, 1981, pp. 519.

4. The narration relating to Sambuka in the Uttarakanda of the Valmiki Ramayana perhaps symbolises the origin of the first Sudra and his aspiration to enter Svarga, the heaven of the Devas, but along with his body, of which even a Brahmana was said to be incapable of. Hence the destruction of Sambuka by Sri Rama. The dialogue between Bhrigu and Bharadvaja also seems to suggest some similar aspiration by those who at about this stage or a little later began to be termed Sudras. See, The Ramayana of Valmiki, cited earlier, Vol. III, pp. 582-583; and Narada Purana, cited earlier, especially, II.43.69&70, pp.521.

5. For example, one of the Alankarsastra texts, Kavyadarsa, defines the permissible subjects of a Maha-Kavya, an epic, in the following words:

> It [the Maha-Kavya] has its source in a story told in the Itihasas or other good (true) material. It deals with the fruit (or goal) of the four kinds (Dharma, Artha, Kama and Moksha). It has a great and generous person as the hero. It is embellished with descriptions of the cities, oceans, hills, the seasons, the moonrise, the sunrise, of sport in the garden and of sport in the waters, of drinking scenes, of festivals, of enjoyment (love), of separation (of lovers), of (their) marriage and (their) nuptials and birth of princes, likewise, of consultation with the ministers, of sending messengers or ambassadors, of journeys (royal progress), of war and the hero's victories; dealing with these at length and being full of Rasa (flavour) and Bhava (suggestion): with Sargas (chapters) which are not very lengthy and which are well-formed with verse measures pleasing to the ear; everywhere dealing with a variety of topics (in each case ending each chapter in a different meter). Such a poem being well-embellished will be pleasing to the world at large and will survive several epochs (Kalpas).

It is obvious that ordinary persons and their routine day-to-day occupations cannot be the subject of high literature that is so precisely defined and elaborately circumscribed. A similar view of literature seems to have been held in Europe also till recent times.

Translator's note

Any study of the Indian *chitta* and *kala* necessarily involves a number of definitional terms of Indian philosophical discourse, which are, of course, untranslatable. We have not attempted to translate these terms. Instead, we have provided a descriptive glossary of the Indian terms used in the text.

The glossary does not always follow the standard scholarly definition of a term. On the other hand, even at the risk of being long-winded, we have tried to indicate the various nuances commonly associated with a term in both the scholarly and the lay Indian usage. In particular, we have tried to bring out and elaborate upon the specific meanings of a term implied in the text.

For transliteration of Indian terms in Roman script we have followed no specific convention, and have tried to use the form that seems to us to be most common, and most likely to be correctly understood by readers in both north and south India. In the glossary we have given the correct Sanskrit form in Devanagari script for all Indian terms used in the text.

Sri M.D. Srinivas has crucially contributed in the preparation of the glossary. Without his help there would not have been any glossary, at least not in this form. Sri R. Krisnamurthy Sastrigal, Professor of Vedanta, Madras Sanskrit College, has kindly read through the glossary. We are grateful to him for his valuable suggestions.

While translating this essay I have tried to retain the conversational flavour of the Hindi text. But it has not been always possible to remain literally faithful to the original. At places whole paragraphs have been restructured, and some illustrative and elaborative material has been inserted here and there.

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Sri Dharampal had originally spoken about these matters at length, largely in Hindi, but also occasionally in English. The Hindi essay was constructed from those conversations running into many hours. The material was first prepared for serial publication in *Jansatta*, the Hindi daily of the Indian Express Group, and later printed in the form of a small book. It is my association with this whole process, and the fact of having listened to the original conversations of Sri Dharampal, that gave me the courage to undertake this translation.

My colleagues, Sri S.S. Vasan and Sri T.M. Mukundan, have kindly read through the English text. Their help has been invaluable.

JITENDRA BAJAJ

GLOSSARY

Acharya +ÉSÉÉªÉÇ

Preceptor and teacher. One who initiates the student into *adhyayana*, study of Vedas (see below) and *sastras*, the canonical texts of various disciplines. The first teachers of different schools of philosophy and different *sastras*. Also *Bhashyakara-s*, the commentators, of Vedas and *sastras*.

Ahankara +½ÆøEòÉ®ô

Attachment to self, conceit, self-consciousness, egotism. Considered to be a form of ignorance in Indian philosophy. Also, the third of the eight basic constitutive elements of the manifest universe in *Sankhya*, one of the major schools of Indian philosophy.

Ahimsa +Ê½ÆøºÉÉ

The doctrine of non-injury, non-violence. Abstaining from killing or giving pain, and in general abstaining from violating the *Rita*, the natural order of the universe and Time, in thought, word and deed. Considered to be part of the *samanya dharma*, discipline common to all sections of society, in the Indian *dharma-sastra* texts. Mahatma Gandhi re-emphasised *ahimsa* and *satya*, steadfastness in truth, as the supreme principles of individual and social thought and action.

Ahimsak

Adjectival form of *ahimsa*.

Apara Vidya +{É®ôÉ Ê´ÉtÉ

Knowledge of the mundane, as distinct from *para vidya*, knowledge of the transcendent reality. *Para vidya* and *apara vidya* are defined in the context of the discourse of the *Upanishadas* (see below).

Artha +lÉÇ

Human effort directed towards the attainment of worldly prosperity in accordance with *dharma.* One of the four *purusharthas*, basic categories of human endeavour, along with *kama, dharma* and *moksha* (see below).

Avatara +´ÉiÉÉ®

Worldly incarnation of the divine. There happen to be ten *avataras of Sri Vishnu* (see below) in every cycle of creation. The names of the ten *avataras* differ from text to text, but the usual list includes: Matsya, Kurma, Varaha, Narasimha, Vamana, Parasurama, Rama, Krishna, Buddha, Kalki, in chronological order. Besides these ten, Puranas talk of several Avataras that occur at different times. In general, persons with extraordinary divinity are perceived as *avataras* by the Indians.

Ayodhya +ªÉÉävªÉÉ

Literally, one that cannot be fought against. The capital city of Kosala Desa, located on the banks of Sarayu river. During the *Treta* and *dvapara yugas*, Kosala Desa was ruled by the Ikshvaku Vamsa into which Sri Rama was born. Ayodhya is one of the seven great sacred cities of India that have been in existence since the Pauranic times. The seven are: Dvarika, Avantika (Ujjain), Mathura, Maya (Haridwar), Ayodhya, Kasi and Kanchi. These cities are also known as *mokshadayikas*, the cities that lead to *moksha.* For *moksha*, see below.

Ayurveda +ÉªÉÖ´ÉÇänù

The Indian science of healthy living. This science is considered as an *Upaveda*, along with *Dhanurveda, Gandharvaveda*, and *Sthapatyaveda*, the sciences of archery, fine arts and architecture, respectively.

Balarama ¤É±É®ôÉ¨É

Elder brother of Srikrishna. A great warrior and a great exponent of *Gada Yuddha*, the art of fighting with the mace, which he teaches to both Arjuna and Duryodhana, the two opposing heroes of Mahabharata war. Balarama is one of the few great warriors of the time of Mahabharata who refuse to take part in the war.

Buddha ¤ÉÉèrù

Pertaining to Buddha. Also, the followers of Buddha. Also see Gautama Buddha below.

Bhalu-s ¦ÉÉ±ÉÚ

Bears. In Ramayana, Rama conquers Ravana with an army of monkeys, lemurs and bears. In the descriptions of Ramayana it is difficult to discern any species-specific differentiation between humans and these. Other species like birds, reptiles, etc., also seem to be in natural communication with humans and other beings. Also, see *vanara* below.

Bharadvaja ¦É®ôuÉVÉ

One of the major ancient *rishis* of India at the time of Ramayana. Bharadvaja is also a Gotra, clan name, and *Rishis* of Bharadvaja *gotra*, called Bharadvajas occur in various Puranas at different epochs.

Bharatiya ¦ÉÉ®ôiÉÒªÉ

Pertaining to Bharatavarsha, the geographical region bounded by the Himalaya in the north and the ocean in the south, described in the Puranas as the *Karma-Bhumi*, the area of manifestation of Indian civilisation.

Bhashya ¦ÉÉ¹ªÉ

Commentary, interpretation. Literally, bringing (a text) to light. Canonical texts of most disciplines in India are written in a compact, tightly structured form. These texts are elaborated and interpreted in the *bhashyas*. Writing of *bhashyas* is considered the basic scholarly task and is invariably undertaken whenever a new school of thought is formed in any discipline.

Bhava ¦ÉÉ´É

Literally, becoming, existing, appearing. According to Indian aesthetics, *bhava* is the quality of a creative composition, verbal or visual, that leads to the generation of the intended *rasa*, sentiment, in the *sahridaya*, the listener or the viewer. Also, see *rasa* below.

Bhojpuri ¦ÉÉäVÉ{ÉÖ®ôÒ

The language of Bhojpur, the region around Patna and Bhagalpur in the state of Bihar. Bhojpuri is one of the family of languages from which modern Hindi has evolved. Other important members of this family are Braj, Avadhi and Maithili. All of these languages continue to be spoken, and most have a fair amount of continuing literary activity.

Bhrigu ¦ÉÞMÉÖ

One of the ancient *rishis* of India in the age of Ramayana. Father of Parasurama. Bhargavas, the descendants of Bhrigu, often appear prominently in later Indian history as recounted in the Puranas.

Brahma/Brahman ¥ÉÀÉ/¥ÉÀxÉÂ

Brahma, the Sanskrit masculine noun form, refers to the creator, who is also called the Chaturmukha Brahma. He is the first of the *Trimurti*, the Indian Trinity, comprising Brahma, the creator, Vishnu, the preserver, and Mahesvara, the destroyer. Brahman, the Sanskrit neuter noun, refers to the Being, the ultimate principle, that is whole and undifferentiated, and that manifests as the Universe during the phase of creation.

Brahmana ¥ÉÉÀhÉ

One of the four *varnas*, large groupings, into which human society gets differentiated at a certain stage of evolution of the Universe. *Brahmana* is canonically charged with performing the duties of *adhyapana*, teaching, *adhyayana*, self-study, *ijya*, performing *yajnas* (see Brahmanas below), *yajana*, to get *yajnas* performed, *dana*, to give, and *pratigraha*, to receive offerings.

Brahmana-s ¥ÉÉÀhÉ

The part of Vedas (see below) that lays down rules regarding which *mantras*, hymns, are to be recited, in what form, and accompanied by what rituals, during the various *yajnas*. Brahmanas also often tell the legends associated with the origin of various *mantras* and *yajnas*. *Mantras* are the hymns of the Vedas. *Yajnas* are often represented as Vedic rituals, but canonically all action performed in accordance with the Vedas is *yajna*.

Most of the Upanishadas (see below) form the concluding part of the Brahmana-s.

Brahmananda Saraswati ¥ÉÀÉxÉÆnù ºÉ®ôº´ÉiÉÒ

Former Sankaracharya of Joshi Math at Badari. For Sankaracharya, see Kanchi Kamakoti Peetham below. Also see Joshi Math below.

Chaturyuga SÉiÉÖªÉÖÇMÉ

The basic Indian cycle of creation and destruction. According to the Puranas and the astronomical texts, one *chaturyuga* consists of 43,20,000 solar years. Thousand *chaturyugas* form a *kalpa*, which is the larger cycle of creation and destruction, and is seen as a day of Brahma (see above). The four *yugas* comprising the *chaturyuga* are: *Krita, Treta, Dvapara* and *Kali.*

Chitrakuta ÊSÉjÉEÚò]

Literally, the mountain with picturesque hills. The hills and forests at the outskirts of Kosala Desa, near Prayaga, the confluence of rivers Ganga, Yamuna and Saraswati, where *rishi* Bharadvaja had his *asrama*, the hermitage. Sri Rama stayed at Chitrakuta for some time at the beginning of the fourteen years of his *vanavasa*, banishment into forest.

Chitta ÊSÉkÉ

The perceiving intellect. In their analysis of consciousness different schools of Indian philosophy present somewhat differing definitions of *Chitta*. But, for all of them the perceiving intellect carries the *samskaras*, is tinged with the recollection of earlier experiences and actions, both civilisational and individual. It is the objective of all effort at ultimate knowledge, *jnana* and *moksha*, to rid the *Chitta* of the *samskaras*, and thus perceive the reality in itself. Such perception is *darsana*, which is also the Indian term for philosophy. The Indian perception of the Universe and its unfolding is supposed to have arisen through such *darsana* of the rishis. Thus, as far as Indian view of the intellect is concerned there is no escape from thinking within the civilisational framework in the ordinary course of mundane living, and the civilisational truths that inform this thinking are all supposed to be the ultimate truths that would be perceived by the pure intellect that is rid of all civilisational or other recollections. Also see *manas* below.

Deva näù´É

Forms of the divine. Various aspects of the Universe and its functioning are manifestations of different *devas*, such as Indra, Mitra, Varuna, etc. For the Indians any person or object that reminds them of the ultimate reality becomes a *Deva*. The Puranas talk of 33 crore *devas* inhabiting the Universe.

Dharma vÉ¨ÉÇ

The sustaining order of the Universe. Also of human society and individuals. Hence *dharma* of various *varnas* (see below), of various stages of life, and of various situations. *Dharma* in all these cases is the appropriate action and thought in conformity with the order of the Universe. The order of the Universe is *Rita*, and *dharma* is what sustains it. *Adharma* is what would be violative of *Rita*. Since order of the Universe unfolds in time, *dharma* changes with the changing times, and is, in fact, specific to *kala, desa* and *avastha*, time, place and circumstance, respectively.

Dharmic

Anglicised adjective form of *dharma*. In accordance with *dharma*.

Draupadi pùÉè{ÉnùÒ

Daughter of Drupada, the king of Panchala Desa, and wife of the five Pandava brothers (see below). Draupadi was born from the *yajna Vedi*, the sacred fire of the Yajna (see Brahmana-s above) performed by Drupada. Draupadi and Srikrishna are the two pivotal figures of Mahabharata, whose *samkalpa* (see below) and determination seem to drive the entire sequence of events. Most localities of south India have a Dharmaraja temple, named after the eldest of the Pandava brothers. In these temples Draupadi is invariably the main deity.

Dvapara uùÉ{É®ô

The third of the four *yugas* of the *chaturyuga* cycle. In this *yuga* the bull representing *dharma*, that upholds the earth, is left with only two feet. *Dvapara* in the current *chaturyuga* begins with the ascendance of Srirama and ends with the ascendance of Srikrishna from the earth.

Ganesa/Sri Ganesa ôMÉhÉä¶É/¸ÉÒ MÉhÉä¶É

God of wisdom. Son of Siva, Mahesvara of the Indian Trinity (see Brahma above), and Parvati. Ganesa literally means the chief of *Ganas*, the army of Siva. Ganesa is invoked as *Vighnesvara*, the remover of obstacles, at the commencement of all undertakings and compositions. The elephant head of Sri Ganesa denotes his great sagacity.

On being invoked by Vyasa (see below), Sri Ganesa agrees to be the writer for his composition of Mahabharata on the condition that Vyasa must compose and dictate the text so fast that Ganesa's quick pen may never stop till the end of the composition. It is said that in order to satisfy this condition and somewhat slow down Sri Ganesa's hand, Vyasa often had to introduce complicated concepts and complex phrases in his composition of Mahabharata.

Ganesa and Hanuman, the *vanara* (see below) chief of incomparable strength and wisdom and the incomparable devotee of Sri Rama, are the two most intimate gods of the Indians. Their temples are found in almost every locality and habitation of India. And in south India, no locality is considered properly inhabited without a *murti*, idol, of Ganesa sanctifying it with his presence.

Gautama Buddha MÉÉèiÉ¨É ¤ÉÖr

Prince Siddhartha of *Sakya Vamsa* (see below) of Kapilavastu, who moved by *duhkha*, suffering inherent in the transient world, renounced his kingdom and family, undertook great *tapas* (see below) for several years, and finally achieved enlightenment and thus became Gautama Buddha. He became the founder of one of the two great *darsanas*, schools of philosophy, that evolved outside the Vedic schools. Gautama Buddha's teachings spread far and wide, and through his teachings Indian thought reached Sri Lanka, Tibet, China, Korea, Japan and many other countries of South and East Asia. A majority of the people in many of these countries continue to be the followers of Gautama Buddha, who is known by many names and worshipped in many forms. In India, Gautama Buddha is revered as the ninth *avatara* of Sri Vishnu.

Grama OÉÉ¨É

Literally, a coherent group. The community of people of a locality. Such communities in the indigenous polity were largely self-governing and along with the localities in the immediate neighbourhood formed a more or less self-sufficient whole.

Grihastha MÉÞ½øºlÉ

Householder. The second of the four *asramas*, stages of life defined in the Indian classical texts. *Grihasthasrama* is the stage of married life, during which a person is responsible for bringing up children, for creating and sharing wealth, and performing all acts necessary for the routine sustenance of society. Other three *asramas* are: *brahmacharya*, the stage of studentship and celibacy, *vanaprastha*, the stage of withdrawal from active routines of social life, and *sanyasa*, the stage of renunciation.

Itihasa <ÊiÉ½øÉºÉ

Literally, 'it happened thus'. The term generally refers to the two great epics of India, the Ramayana and the Mahabharata, which recount the important events and the details of life in the *Treta* and the *Dvapara yuga*, respectively. In current Hindi, the term Itihasa is taken to be the equivalent of history.

Jaina VÉèxÉ

One of the two ancient *darsanas*, schools of philosophy, that are considered to be outside the Vedic schools. The other is Bauddha. The Vedic schools of philosophy are: *Sankhya, Yoga, Nyaya, Vaiseshika, Purva Mimamsa* and *Uttara Mimamsa.* The last is also referred to as Vedanta. The Jaina school traces its history to great antiquity marked by 24 *Tirthankaras*, the Jaina Avataras, the last of whom is Mahavira. Present scholarship places Mahavira as an elderly contemporary of Gautama Buddha. From the time of Mahavira a separate Jaina *sampradaya*, community of followers of Jaina teachings, came into being.

Jati VÉÉÊiÉ

Literally, a group with a generic defining attribute. A community of people joined together by kinship and profession. A *jati* is often spread over a number of localities within a compact region. *Jati* is the basic trans-locality social and political grouping of Indian polity. *Jati* and *grama* are, in fact, the two fundamental constitutive units of this polity. All individuals belong to a specific *jati* and a *grama*, and they participate in the polity as members of their *jati* and *grama*.

The defining attribute of a *jati* is the *jati dharma*. Many *Jatis* have a *jati Purana* (see, Purana below) of their own, which describes the *jati dharma*, and stories and legends of the origin, and of the great heroes, of the *jati*.

The use of the word *jati* for the kinship community in the sense defined above seems to be of relatively recent origin. The traditional Indian terms connoting this concept are *gotra* and *kula.* The English word 'caste', of Portuguese origin, is an ambiguous term that, at least in the common language, is used indiscriminately to stand for *jati, varna, vamsa,* (see below for *Varna* and *Vamsa*), or any other Indian grouping or community of people.

Jayendra Saraswati VÉªÉäxp ºÉ®ôº´ÉiÉÒ

The second of the three Sankaracharya's of the Kanchi Kamakoti Peetham, who are gracing our times with their presence. The eldest, the Paramacharya, Sri Chandrasekharendra Saraswati, one of the holiest men of India, consecrated Sri Jayendra Saraswati as the *Peethadhipati*, the reigning *Sankaracharya*, in the year 1954. Later, in 1983, the youngest, Sri Sankaravijayendra Saraswati was consecrated as the *Peethadhipati*. Also see Kanchi Kamakoti Peetham below.

Jeeva VÉÒ´É

The individualised soul. *Jeeva* and Isvara are two aspects of Being. *Jeeva* is individualised being, and Isvara is the cosmic, undifferentiated Being. Relationship between *jeeva* and Isvara is the central issue of discussion in various schools of Indian philosophy.

Joshi Math VÉÉä¶ÉÒ ¨É`

The seat of the Sankaracharya of Jyotirpeetham at Badari in the hills of Uttar Pradesh. Also, see Kanchi Kamakoti Peetham below.

Jyotisha VªÉÉäÊiÉ¹É

One of the six Vedangas, constituent sciences of the Vedas. The other five are: *siksha*, phonetics, *vyakarana*, grammar and linguistics, *nirukta*, etymology, *chhandas*, metrics, and *kalpa*, rules for the performance of rituals. *Jyotisha* deals with the determination of time, location and direction in conjunction with the movement of the celestial bodies. This is the *ganita skandha*, or the mathematical section of *jyotisha sastra*. There are two other *skandhas*: *Samhita*, dealing with the symbolism of natural and celestial phenomena, and *Jataka*, dealing with the determination of the influence of celestial motion on the human condition.

Kala EòÉ±É

Time. *Kala* denotes the concept of time, and is seldom used for calendrical time or for the time of the day. *Kala* in Indian thought is the determinator of all that happens and is said to be *Duratikrama*, inviolable. *Kala* thus is the nearest approximation to the Western concept of the law of nature, except that, unlike the *law, kala* is also said to be unknowable in its entirety. Nevertheless, since in the Indian understanding the unfolding of the Universe is cyclical and repetitive, the way things in general are likely to be can largely be inferred from the *yuga* and the epoch one is situated in. This sense of *kala* as the 'tendency' of the epoch often appears in the ordinary Indian usage.

Kali EòÊ±É

The fourth and the last *yuga* of a *chaturyuga* cycle. The current Kaliyuga began with the ascendance of Srikrishna from the earth after the Mahabharata war, more than 5,000 years ago. Indian astronomical texts fix the time and date of the onset of current *kaliyuga* either at the midnight of February 17/18 or the sunrise of February 18 of 3102 B.C., which is the *Chaitra Sukla Pratipad* of *Vikrama Purva* 3045 by the Indian calendar.

Kalpa Eò±{É

Period of one thousand *chaturyugas*, forming a day of Brahma. A *kalpa* is divided into 14 *manvantaras,* and there is a Manu, the patriarch, of each of the 14 *manvantaras*. The largest Indian time cycle is that of 100 years of the life of Brahma, which is called a *para* and half of it is *parardha*. Currently we are in the *vaivasvata manvantara*, the seventh *manvantara* of the *Svetavaraha Kalpa,* which is at the beginning of the second *parardha*, or the fifty-first year of the current 100 year cycle of Brahma.

Kama EòÉ¨É

One of the *arishadvarga*, the six vitiating attributes of the *Chitta*. The other five are *krodha, moha, mada, matsarya* and *lobha*, roughly translated as anger, attachment, conceit, jealousy, and greed, respectively. Appearing at different stages, these attributes are necessary concomitants of the unfolding universe. *Kama*, loosely translated, is the longing for sensory gratification. *Kama* is also one of the four *purusharthas*, and refers to the human endeavour towards procreation and sensory satisfaction in accordance with *dharma*.

Kanchi Kamakoti Peetham EòÉ\SÉÒ EòÉ¨ÉEòÉäÊ] {ÉÒ`¨ÉÂ û

One of the five Peethams, seats of high learning and sanctity, established by Adi Sankara in different parts of India to re-establish the pre-eminence of *Vedanta* as the Indian way of life and thought. The other four Peethams are at Sringeri, Dvarika, Badari and Puri. These Peethams are presided over by Sankaracharyas, who are also revered as *Jagadgurus*, teachers of the world.

Karma Eò¨ÉÇ

Action. The Indian principle of causality, according to which every action has a consequence. In fact, every action sets off a chain of consequences that stretches through all universe and Time. For the individual all actions performed leave their traces, the *samskaras*, which are carried from one birth to the other, and so are the consequences, the *karma-phalas*, of his actions.

Kavyadarsa EòÉ´ªÉÉnù¶ÉÇ

Treatise on *Alankarasastra*, the science of rhetorics, by Dandin, the Sanskrit poet, who is presumed to have lived in south India in early seventh century. His other important works are Dasakumaracharitam and Avantisundarikatha, both of which are literary compositions known for their *padalalitya*, the simplicity and beauty of composition.

Khadi JÉÉnùÒ

Handspun and handwoven cotton cloth. Daily hand-spinning and wearing of *khadi* were part of the discipline of *satyagraha* evolved by Gandhiji during the freedom movement. *Satyagraha*—insistence upon truth—was the form of civil disobedience used in India to counter oppression and injustice.

Krita EÞòiÉ

The first *yuga* of the *chaturyuga* cycle. In this *yuga, dharma* represented by the bull supporting the Universe stands securely on all four legs. The four legs of *dharma* are said to be *satya, ahimsa, daya,* and *dana*, truth, non-injury, kindness and generosity, respectively, in rough translation.

Kshatriya lÉÊjÉªÉ

One of the four *Varnas*. Canonically the *kshatriya* is charged with *prajarakshana*, protection of the people, *adhyayana*, self-study, *ijya*, performing *yajnas, dana*, giving, and *vishayeshu aprasakti*, detachment from the sense objects.

Lakshmana ±Él¨ÉhÉ

Younger brother of Srirama. Lakshmana is the *avatara* of Adisesha, the serpent associated with Vishnu. Lakshmana represents, for the Indians, the role model of an ideal younger brother and companion.

Lalita Vistara ±ÉÊ±ÉiÉÊ´ÉºiÉÉ®ô

Major text of *Mahayana* Buddhism. Written in Samskrit. Belongs to the class of Buddhist texts called Vaipulya Sutras. Lalita Vistara refers to itself as a Purana. The text is divided in 27 chapters, and describes the life of the Buddha up to *dharma chakra pravartanam,* the first sermon. The text was translated into Chinese in the 1st century A.D.

Lobha ±ÉÉä¦É

One of the six vitiating attributes of the *Chitta. Lobha* connotes the human weakness indicated by terms like covetousness, greed, avarice, etc.

Mada ¨Én

One of the six vitiating attributes of the *Chitta. Mada* connotes the human weakness indicated by terms like conceit, presumptuousness, arrogance, etc.

Mahabharata ¨É½øÉ¦ÉÉ®ôiÉ

One of the two Itihasas, the other being Ramayana. Mahabharata is the story of the great war fought towards the end of the present *Dvapara yuga*, that involved almost all the kings and warriors of Bharatavarsha. Only the five Pandavas (see below), their cousin Srikrishna and his nephew Satyaki, on the one side, and three warriors, Kripacharya, Asvatthama and Kritavarma, on the other, survive the war. Within four decades of the war, the entire Yadava *vamsa* of Srikrishna, except for Vajra and Uddhava, also gets wiped out, and Srikrishna himself leaves the earth. So do the Pandavas along with their wife, Draupadi. This event is said to mark the beginning of *kaliyuga*.

Maha-Kavya ¨É½øÉEòÉ´ªÉ

Great literary composition. *Kavya*, according to the Indian texts, consists in the appropriate union of *sabda* and *artha*, word and meaning. In this sense all great literature is *kavya*. *Maha-Kavya* is a *kavya* that has the additional quality of dealing with themes and personages from the Itihasas or Puranas, or other canonical texts of similar stature. *Maha-Kavyas* treat these subjects on a wide canvas, and Indian texts offer rigorous definitions of the qualities that a *kavya* must satisfy for it to be termed a *Maha-Kavya*. *Maha-Kavya*, like all *kavya*, can be in *padya*, verse, *gadya*, prose, or *champu*, mixed form. Five major *padya Maha-Kavyas* of classical Samskrit literature are: Raghuvamsam and Kumarasambhavam of Kalidasa, Kiratarjuniyam of Bharavi, Sisupalavadham of Magha, and Naishadham of Sriharsha. Kadambari of Bana is a major *Maha-Kavya* in the *gadya* form and Champu Ramayana of Bhoja is one of the highly regarded among those in the mixed form.

Maharshi ¨É½øÐ¹É

Great Rishi. For Rishi, see below.

Mahatma ¨É½øÉi¨ÉÉ

Literally, great soul. One who is great both by nature and actions. Indians use this honorific for someone who is perceived to be near the divine and beyond worldly temptations.

Mahavira ¨É½øÉ´ÉÒ®ô

Vardhamana Mahavira. Born in Vaisali. The 24th *Tirthankara* (see below), who was the first teacher of Jaina *darsana*, one of the two great non-Vedic schools of Indian philosophy, and founder of the Jaina *sampradaya*, community of the followers of Jaina *darsana*. Mahavira is said to be an elderly contemporary of Gautama Buddha. Also, see Jaina above.

Manas ¨ÉÉxÉºÉ

Literally, of the *manas*, loosely translated as the mind. Used in the text in the sense of the shared psychic attributes of a civilisation. Canonically, all sense perception occurs through the agency of *antahkarana*, which is constituted of *manas*, the internal sense organ, *buddhi*, the intellect that discriminates between the received sensations, *ahankara*, the I-sense, and *Chitta*, the pure intellect that is tinted by previous and current perceptions and consequent *samskaras*, (see Chitta above). Though *manas* is one of the constituents of *antahkarana*, yet the term is also used as synonymous with *antahkarana*. Defined thus, *manas* can perhaps be said to be the agency through which all phenomena are sieved before perception.

Moha ¨ÉÉä½ø

One of the six vitiating attributes of the *Chitta*. Attachment born out of delusion, such as taking the manifest Universe to be the ultimate reality and consequent failure to see the undifferentiated Brahman manifesting as the Universe.

Moksha ¨ÉÉäIÉ

Literally, liberation. The state of realisation of the unity of all manifest beings. Dissolving of the differentiated being into the Brahman. Such realisation and dissolution frees the individual from *samsara*, the cycle of repeated births and deaths that the individual keeps going through till the sense of the individual identity is not merged with the Brahman. Also, one of the four *purusharthas* (see *Artha* above). Thus, human endeavour towards *moksha*. For the Indians all human endeavour must ultimately be directed towards this state of realisation.

Muni ¨ÉÖÊxÉ

Literally, one who thinks and reflects. Also, according to some authorities, one who keeps *mauna*, silence. Men of great wisdom and equanimity are generally referred to as *muni-s* in Indian classical literature and also in current usage.

Nagari xÉÉMÉ®ôÒ

Literally, pertaining to the city. Of the city. *Nagari* usually refers to the script of the classical Samskrit corpus of north India. This is also the script in which many languages of India, like Hindi, Marathi, Nepali, etc., are written. Another meaning of the word, and the one followed in the text, is that which defines the practice of the elite. *Nagari* Hindi, thus, is the Hindi spoken and written by the elite.

Narada Muni xÉÉ®ônù ¨ÉÖÊxÉ

A very famous *Rishi* of the Puranas. Narada literally means the one who gives knowledge of Brahman (see above). In the Pauranic narratives Narada Muni often appears at the crucial moments and makes the events move on their destined course through his suggestions and interventions. It is Narada Muni who first recount the story of Sri Rama to Maharishi Valmiki. Narada Muni is known as a great devotee of Sri Vishnu and is the author of the famous Bhakti Sutras. He is also known as a great musician, who wanders through the worlds playing on a stringed instrument and singing devotional songs.

Pali {ÉÉ±ÉÒ

Literally, that which preserves. Pali is the language in which the teachings of Gautama Buddha are 'preserved'. The corpus of Buddha's teachings is contained in the *Tirpitaka* texts. At a later stage, Buddhism split into *Hinayana* and *Mahayana* streams, and while Pali continued to be the language of the *Hinayana* school, the *Mahayana* school adopted Samskrit.

Pali was the Prakrit of Magadha, the region where Gautama Buddha lived and taught for a long time. For Prakrit, see below.

Pandavas {ÉÉhb´É

The five sons of Pandu, whose elder brother Dhritarashtra was the ruler of the Kuru Desa, the region around modern Delhi, at the time of Mahabharata war. Five sons of Pandu, the Pandavas, and one hundred sons of Dhritarashtra, the Kauravas, are the main protagonists of the war. The names of the Pandava brothers are: Yudhisthira, Bhimasena, Arjuna, Nakula and Sahadeva. Their main opponent is Duryodhana, the eldest of the Kaurava brothers.

Pandit {ÉÊhbýiÉ

A learned person. Also used as an honorific.

Para Vidya {É®ôÉ Ê´ÉtÉ

See *Apara Vidya* above.

Parikshit {É®ôÒÊIÉiÉ

Grandson of Pandavas, who was the only survivor to carry forward the Kuruvamsa, the royal line to which Pandu and Dhritarashtra belonged. Thirty-six years after the end of the Mahabharata war, the Pandavas anointed Parikshit the king, and left the earth along with their wife, Draupadi. Parikshit thus became the first king of the current *kaliyuga*. Srimadbhagavata Purana was recited to Parikshit by Maharshi Suka during the last seven days of Parikshit's life.

Pauranic

Anglicised adjective form of Purana. Of the Puranas. For Purana, see below.

Prajna |ÉYÉÉ

Purified intellect, symbolised by goddess Sarasvati. One of the main components of education is the discipline of purifying the intellect.

Prakrit |ÉÉEÞiÉ

Literally, natural, artless, normal. Any one of the languages spoken in the different regions of India. Samskrit, literally is the 'refined' language, while Prakrit-s are the 'natural' languages. In classical Samskrit drama, women and the ordinary people speak Prakrit, and the male gentry speaks Sanskrit. This distinction, however, is peculiar to the literature of drama alone, and is not found either in the Puranas and Itihasas, or in the other *kavyas*. Many Jaina canonical texts and Jaina Puranas are in Prakrit.

Three major Prakrit languages of classical India are: Sauraseni of the Mathura region, Magadhi of the Magadha region of Bihar, and Maharashtri of Maharashtra.

Prithvi {ÉÞI´ÉÒ

The goddess earth. Also one of the *panchamahabhutas*, the five elementary constituents of the material universe. The other four are: *ap, tejas, vayu, akasa*. Water is largely constituted of the element *ap*, fire of *tejas*, air of *vayu* and space of *akasa*.

Purana {ÉÖ®ôÉhÉ

Literally, belonging to ancient times. Puranas, along with the Itihasas, recount the major happenings of various epochs. The five defining characteristics of a Purana are: It should describe *sarga*, creation; *pratisarga*, dissolution; *vamsa*, the different lineages from Manu, the first patriarch of the epoch; *manvantara*, the happenings of different *manvantaras* (see *Kalpa* above); and *vamsanucharita*, the genealogies of the protagonists, especially of the kings and the *rishis*. It is said that study of the Vedas has to be complemented by that of the Itihasas and Puranas. Veda without the knowledge of Purana and Itihasa is likely to be misunderstood.

Indians speak of *ashtadasa maha Puranas*, the eighteen great Puranas. The list of eighteen can differ. One of the more commonly accepted lists includes: Vishnu Purana, Bhagavata Purana, Narada Purana, Garuda Purana, Padma Purana, Varaha Purana, Brahma Purana, Brahmanda Purana, Brahmavaivarta Purana, Markandeya Purana, Bhavishya Purana, Vamana Purana, Siva Purana, Linga Purana, Skanda Purana, Agni Purana, Matsya Purana, and Kurma Purana. Besides these there are scores of other Puranas in Sanskrit, and there are also similar Puranas in different regional languages.

Though written in the style of narratives of the kings and *rishis* of an epoch, most Puranas are in fact in the nature of encyclopedias of the major issues of public concern at the relevant epoch. The Pauranic style of narration is the canonical Indian style of presenting the thoughts and events of different times, and besides the major Puranas, there are Puranas of different communities, of different localities and also of great personages of known history.

Purusha-Sukta {ÉÖ°¹ÉºÉÚH

A widely known hymn of Rig Veda, that describes Brahman in the form of the cosmic man, and the creation proceeding from Him. This *sukta* appears as the ninetieth hymn of the tenth *mandala*, the tenth book, of Rig Veda. The *sukta* also appears in Yajurveda.

Ramayana ®ôÉ¨ÉÉªÉhÉ

The Itihasa composed by Maharshi Valmiki, that describes the events which took place towards the end of the present *Treta yuga.* Ramayana tells the story of the Ikshvaku prince Sri Rama and his wife Sri Sita, who remain the ideal man and woman for the Indians. And the Indians continue to define ideal polity by reference to *Rama rajya*, the period when Sri Rama graced the throne of Ayodhya, the capital of the Ikshvakus, after having established the supremacy of *Dharma* throughout Bharatavarsha. Maharshi Valmiki's Ramayana is regarded as the *Adi Kavya,* the first great epic of India, and the story of Ramayana has been told again and again by the great poets of all languages and regions of India.

Rasa ®ôºÉ

Aesthetic emotion generated in a *sahirdaya*, the viewer or the listener of a creative composition, by the dominant and the secondary *bhavas* (see above) present in the composition, and the circumstances within which these *bhavas* are placed. Indian texts of aesthetics recognise 10 distinct *rasas*. These are: *sringara, vira, bibhatsa, raudra, hasya, bhayanaka, karuna, adbhuta, vatsalya,* and *santa*, love, valour, disgust, fury, humour, fear, pathos, wonder, affection, and tranquillity, respectively, in rough translation.

Rasa is also a technical term in *Ayurveda*, where it is used to define the qualities of a substance, and in *rasa sastra*, Indian chemistry, where *rasa* defines the essence of different metals and their compounds.

Rig-Veda @M´Éän

The first of the four Vedas. The other three Vedas are: Yajurveda, Samaveda and Atharvanaveda. Rig-Veda consists of 1,028 Suktas arranged in 10 *mandalas. Sukta* may be translated as the hymn, and *mandala* as the book. Each *sukta* of Rig-Veda consists of a number of *richa-s*, the verses of *Rig-Veda.* There are more than 10,000 *richa-s* of Rig-Veda.

Rishi @Ê¹É

Literally, seer. *Rishis* are the great sages of Indian antiquity, who are *drashtas*, seers, of the unfolding of the Universe, and therefore have the ability to see into the past and the future. Most Vedic *mantras*, hymns, are associated with some great *rishi*, who is said to be the *drashta*, or seer, of that hymn.

Samadhi ºÉ¨ÉÉÊvÉ

Right meditation. According to *Yoga darsana*, the Indian school of philosophy specialising in the analysis and discipline of the mind, *Chitta* is said to be in a state of *samadhi* when its natural tendency of being in constant flux is put under control and the consciousness is highly concentrated. There are different stages of *samadhi*, culminating in the *asamprajnata samadhi*, in which state the distinction between the knower and the known is lost, and the *Chitta* merges with the Brahman.

Sambuka ¶É¨¤ÉÚEò

A *sudra muni*. Towards the end of the reign of Sri Rama, the tranquillity of life in Kosala Desa is disturbed by Sambuka's intense *tapas* (see below) with the objective of ascending to *svarga*, the abode of the *devas*, along with his earthly body. This extraordinary desire disturbs *dharma*, the natural order of the Universe, and the disturbance leads to unnatural occurrences, like the death of a child before that of his parents. In order to restore *dharma*, Sri Rama goes out in search of the source of the disturbance, and finding Sambuka engaged in intense austerities, kills him with a single blow of his sword.

Sambuka is probably the first *sudra*, who appears towards the end of *Treta*. There is perhaps no earlier reference to *sudras* in the Itihasas and Puranas.

Samkalpa ºÉÆEò±{É

Oriented consciousness. Intentionality. Creation and unfolding of the universe follow from the *samkalpa* of Brahman. Fruition of all human action also depends upon *samkalpa*, which in this context would imply orienting the consciousness in conformity with the cosmic design. Such orientation is achieved through *tapas*, disciplined and intense effort. This discipline often includes the practice of great austerities of the mind and the body.

Sanskrit ºÉÆºEÞiÉ

Literally, properly refined, well-formed and perfect. Language of the classical literature of India.

Sanatana ºÉxÉÉiÉxÉ

Eternal. That which has neither a beginning nor an end. What is *sanatana* must also be necessarily whole and undifferentiated, all divisions and differentiations being transient. Brahman and *dharma* are *sanatana*. Veda, all knowledge, is also *sanatana*, though what human beings at any given stage are given to comprehend of it is only a partial glimpse of the whole, and hence transient.

Sankaracharya ¶ÉÆEò®ôÉSÉÉªÉÇ

See Kanchi Kamakoti Peetham above.

Santi-Parva ¶ÉÉÆÊiÉ{É´ÉÇ

The twelfth of the eighteen *parva-s*, books, of Mahabharata. The eighteen *parva-s* are: adi, sabha, aranya, virata, udyoga, bhishma, drona, karna, salya, sauptika, stri, santi, anusasana, asvamedhika, asramavasika, mausala, mahaprasthanika, svargarohana. Santi-parva describes the *raja dharma*, the discipline of politics, and *moksha dharma*, the discipline of *moksha*, as interpreted by the patriarch Bhishma, from his death bed after the end of the war, for the edification of the Pandavas. Santi-Parva is the canonical compendium of Indian thought on polity and *dharma*.

Saranath ºÉÉ®ôxÉÉlÉ

A sacred place near Kasi, where Gautama Buddha initiated the *dharma chakra pravartana*, literally setting the wheel of *dharma* in motion. In Saranath a famous *stupa*, Buddhist shrine, stands at the spot where Gautama Buddha preached for the first time after achieving enlightenment, and thus becoming the Buddha.

Siksha Ê¶ÉIÉÉ

The India concept corresponding to the idea of education. *Siksha* also is a *Vedanga*, a science auxiliary to Vedas, that deals with phonetics.

Sila ¶ÉÒ±É

Right conduct. According to the *dharma sastras*, classical Indian texts of worldly conduct, *sila* involves thirteen virtues including the quality of being immersed in Brahman, of respectfully serving parents and ancestors, and of being detached from worldly desires and jealousies, besides the usual attributes of good conduct, like humility, pity, kindness, truthfulness, etc.

Silpasastra Ê¶É±{É¶ÉÉ»É

The mechanical and structural sciences and technologies of India.

Sita/Sri Sita ºÉÒiÉÉ/¸ÉÒ ºÉÒiÉÉ

Wife of Sri Rama. Sita is an *avatara* of Mahalakshmi, the goddess of all worldly prosperity and wife of Sri Vishnu. Sri Sita of Ramayana is the role model of ideal womanhood in India.

Maharshi Valmiki refers to his Ramayana as *Sitayascharitam Mahat*, the great story of Sri Sita. In Valmiki Ramayana Sri Sita's is the voice of reasoned earthly *vyavahara*, peaceable routine of daily life, constantly tempering Sri Rama's unbending adherence to the rigid codes of *kshatriya dharma*. Notwithstanding her preference for compassionate earthly living, however, she patiently accepts the sufferings she has to endure so that Sri Rama may remain steadfast in his *kshatriya dharma*. In her commitment to the preservation of the ordinary routine of daily life, and in her inexhaustible patience, Sri Sita is like the life-sustaining earth herself, whose daughter she is, and into whose lap she returns when the demands of Sri Rama's *kshatriya dharma* become too much to bear, even for her.

In some ways, Sri Sita is the opposite of Draupadi of Mahabharata, who also is said to be an *avatara* of Mahalakshmi in a later epoch. Draupadi, like Sita, has an inexhaustible capacity for sustaining the routines of daily life, even under pressing circumstances, but unlike Sri Sita, she also has to keep inspiring the Pandavas to rise up to their *kshatriya dharma* and not be sucked into the indolence of the ordinary routine.

Sri ¸ÉÒ

Literally, diffusing light and radiance. Resplendent with beauty, prosperity, auspiciousness and majesty. Name of goddess Lakshmi, wife of Sri Vishnu (see below), and the repository of all these qualities. *Sri* is used as an honorific prefix to the names of deities, and also of celebrated works and objects of high sanctity. In India, *Sri* is the common respectful form of address prefixed to the name of the person addressed. Sometimes the gender specific prefixes *Sriman* and *Srimati*, masculine and feminine form respectively for the 'one endowed with *Sri*', are also used.

Srikrishna ¸ÉÒ EÞ¹hÉ

The form adopted by Sri Vishnu during His *avatara* on earth towards the end of the present *dvapara* at the time of Mahabharata.

Srimadbhagavata ¸ÉÒ¨ÉnÂù¦ÉÉMÉ´ÉiÉ

One of the eighteen *mahapuranas*. Srimadbhagavata describes the story of Srikrishna in detail.

Sringeri Sarada Peetham ¸ÉÆÞÞÞMÉä®ôÒ ¶ÉÉ®ônùÉ {ÉÒ`¨ÉÂ

One of the five Peethams established by Adi Sankara. Sringeri is situated on the banks of river Bhadra in Karnataka. Acharya Vidyaranya, the Sankaracharya of Sringeri Peetham in the early fourteenth century, was the guiding spirit in the establishment of Vijayanagara *samrajya*, the Vijayanagara kingdom of south India.

Sri Rama/Srirama

The form adopted by Sri Vishnu during His *avatara* on earth towards the end of the present *Treta*. Sri Vishnu in this *avatara* plays the role of *Maryada Purushottama*, the ideal man who is bound by and lives within human limitations. Sri Rama thus sets the ideals and limits of the human state. See also Ramayana, above.

Sudra ¸ÉÒ ®ôÉ¨É/¸ÉÒ®ôÉ¨É

One of the four *varnas* into which human society gets divided at a certain stage of the unfolding of the universe. Canonically, *sudras* are charged with *paricharya*, or service. The service tasks, as detailed in the Indian lexicographical texts, include all the arts and crafts that in modern societies are counted under the heads of manufacturing and services.

Swadesi º´Énäù¶ÉÒ

Literally, of ones own *desa*, locality or region. Pertaining to the immediate neighbourhood. The concept that enjoins one to organise mental and material needs such that these may be fulfilled from within the resources, skills and wisdom available in the immediate neighbourhood, and to define one's primary responsibility of life with respect to that neighbourhood. During the Indian independence movement the concept of *swadesi*, as adopted and interpreted by Mahatma Gandhi, became the most cogent argument and a powerful weapon against alien rule.

Swaraj/Swarajya º´É®ôÉVªÉ

Literally, rule of the self. Gandhiji's term for the Indian polity of his vision. According to this vision, *swaraj* was to be based upon the *swadharma* of India, on the Indian ways of thought, action and belief, and this re-establishment of *swadharma* in Indian polity was to begin with the *grama* (see above). Regenerated *grama*, confidently established in its *swadharma,* was the key component of Gandhiji's vision of *swaraj*, which he also called *grama swaraj*. Gandhiji often compared *swaraj* with *Rama rajya,* the ideal polity of the time when Sri Rama sat on the throne of Ayodhya.

Tapas iÉ{ÉºÉ

Burning away the *samskaras* (see *Chitta* above). *Tapas* essentially is *nanasanatpara*, starving the body and senses, following *niyamasvikara*, determined resolution.

Tirthankara iÉÒlÉÈEò®ô

Literally, one who makes *Tirthas*, which mean both the *sastras* and the holy places. *Avataras* of the divine in Jaina Darsana. Also, see Jaina above.

Treta jÉäiÉÉ

The second *yuga* of the *chaturyuga* cycle. In this *yuga,* the bull representing *dharma* stands on three feet.

Upanishada ={ÉÊxÉ¹ÉnÂù

Upanishadas are the basic philosophical texts, generally found at the end of the Brahmana part of the Vedas. These texts define the nature of Brahman, the *jeeva* and the universe, and the relationship between them. This is what is defined as *brahmavidya*, the knowledge that leads to *moksha*. There are more than a hundred Upanishadas of which the following ten are considered the most important: Isopanishada, Kenopanishada, Kathopanishada, Mundakopanishada, Mandukyopanishada, Prasnopanishada, Aitareyopanishada, Taittiriyopanishada, Chhandogyopanishada, and Brihadaranyakopanishada. Upanishadas are the canonical texts of the *Vedanta darsana*.

Vaisya ´Éè¶ªÉ

One of the *varnas* into which the human society gets divided at a certain stage of the unfolding of the universe. The *vaisyas* are specifically charged with the tasks of *krishi, goraksha* and *vanijya*, agriculture, animal husbandry and trade, respectively, in addition to the usual duties of *ijya*, performing *yajnas, adhyayana*, self-study, and *dana*, giving.

Valmiki ´ÉÉ±¨ÉÒÊEò

The great sage who composed Ramayana, the first epic of India. He is, therefore, revered as *Adi Kavi*, the first poet.

Vamsa ´ÉÆ¶É

Lineage. All Indians are presumed to belong to one of the two *vamsas* that began with the current Manu, Vaivasvata. These two great *vamsas* are *surya vamsa*, the solar lineage, and *chandra vamsa*, the lunar lineage. Within these great *vamsas* there are several smaller *vamsas*, each starting with a great patriarch, like Ikshvaku *vamsa* of Sri Rama that started with Ikshvaku; Kuru *vamsa* of the Pandavas and the Kauravas that began with Kuru; and Yadava *vamsa* of Srikrishna that began with Yadu.

Vanara-s ´ÉÉxÉ®ô

The inhabitants of the kingdom of Kishkindha whose help is sought by Sri Rama in his search for Sri Sita, who was kidnapped by Ravana, the King of Lanka. Ultimately, Sri Rama defeats the great scholar and warrior, Ravana, with the help of the *vanara* armies. *Vanara* is also the generic term for different species of apes and monkeys. Also see *Bhalu*, above.

Varna ´ÉhÉÇ

Large groups, based on occupations, skills and social responsibilities, into which human society gets divided at a certain stage of the unfolding of the Universe. At the stage of highest complexity human society is divided into four Varnas. These are: *Brahmana, Kshatriya, Vaisya* and *Sudra*. For the specific tasks and skills of these *Varnas*, see above.

Vasudeva ´ÉÉºÉÖnäù´É

Literally son of Vasudeva, who was a prince of Yadu *vamsa* and father of Srikrishna and Balarama.

Veda ´Éänù

Literally, knowledge. Veda generally refers to all knowledge, and specifically to the *sanatana* knowledge of India that is said to have no beginning, and that was compiled into four separate texts by Vedavyasa (see Vyasa below) at the end of *dvapara yuga*. Veda is also said to be *sruti*, the text that has been heard or communicated from the beginning of creation.

Vishnu/Sri Vishnu Ê´É¹hÉÖ

The aspect of Brahman specially oriented towards the preservation of the creation. Also see Brahma, above.

Visvarupa Darsana Ê´É¶´É°{Énù¶ÉÇxÉ

At the beginning of the Mahabharata war, Arjuna, the chief Pandava warrior, is unnerved at the prospect of fighting against and killing his elders and close relatives. Srikrishna then explains to him that all creation is a manifestation of the Brahman, and all human endeavour is only *nimitta matra*, merely instrumental, in the unfolding of the Universe. Srikrishna also provides Arjuna, though only for a moment, the insight to see the whole Universe manifesting and unfolding within the form of Srikrishna. This event is known as *visvarupa darsana*, literally vision of the Universe. These teachings of Srikrishna constitute the eighteen chapters of Srimadbhagavadgita, which forms part of the Bhishma Parva, the seventh book of Mahabharata. *visvarupa darsana* is described in the eleventh chapter of Srimadbhagavadgita.

Vyakarana ´ªÉÉEò®ôhÉ

Grammar and the science of language. One of the six *Vedangas* (see *Jyotisha* above). *Vyakarana* is known to be the primary science of India, that has to be learnt prior to the learning of all other knowledge and on which most other sciences of India are modelled.

Vyasa ´ªÉÉºÉ

The great *Maharshi* who composed the Mahabharata and the eighteen *mahapuranas* at the end of *dvapara yuga*. It is said that Vishnu manifests as Vyasa in every *dvapara yuga*, and compiles the Veda into four *Samhitas*, compilations. Maharshi Krishna Dvaipayana is the Vyasa of the current *chaturyuga*, who compiled the Vedas in the form available to us, and later composed the Mahabharata and the Puranas.

Yadava Vamsa ªÉÉnù´É ´ÉÆ¶É

The lineage of king Yadu, rulers of Mathura, in which Srikrishna was born as the son of Vasudeva.

Yuga ªÉÖMÉ

An epoch. One of the four large periods into which the basic *chaturyuga* cycle is divided. Also see *Chaturyuga* above.

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DHARAMPAL: LIFE AND WORK

Born in 1922, Dharampal had his first glimpse of Mahatma Gandhi around the age of eight, when his father took him along to the 1929 Lahore Congress. A year later, Sardar Bhagat Singh and his colleagues were condemned to death and executed by the British. Dharampal still recalls many of his friends taking to the streets of Lahore, near where he lived, and shouting slogans in protest.

Around the same period, there were excited discussions, especially in school, about whether the British should leave India. Some were against *swaraj* because they feared invasion of the country by Afghan tribesmen and others. With many others his age, Dharampal tended more and more towards the *swaraj* option. Though he underwent western education throughout school and college, his animosity to British rule grew year by year. By 1940, he had started to wear *khadi* regularly—a practice he follows even now—and even tried to take to spinning the *charkha* for a while.

In 1942, he was present as a fervent spectator at the Quit India Session of the Congress in Bombay and he thereafter joined the Quit India Movement. He was active in it till he was arrested in April 1943. After two months in police detention, he was released but externed from Delhi.

Dharampal recalls he was one of countless people who believed that once the British were gone, India would be rid of its misfortunes, particularly its state of disorganisation and impoverishment.

In August, 1944, he was introduced to Mirabehn by his friends. He joined her soon thereafter, at what came to be known as the Kisan Ashram, situated midway between Roorkee and Haridwar. He stayed with Mirabehn, with occasional absences in Delhi (1947-48) and England (1948, 1949) till about 1953 when she retired, first to the Himalayas, and a few years later, to Europe. But the contact stayed. Dharampal met her again for the last time in July 1982 in Vienna, about two weeks before her death. On that day, they talked together for some 6-8 hours in the quiet of the Vienna woods.

Earlier, during 1947-48, Dharampal had come in close contact with Kamaladevi Chattopadhyaya, Dr. Ram Manohar Lohia, and with numerous younger friends in Delhi. He was then associated with an attempt at cooperative rehabilitation of refugees from Pakistan. (He was a member of the Indian Cooperative Union which was founded in 1948 with Kamaladevi as its president.)

The following year, while in England, Dharampal got married to Phyllis who was English. Afterwards, they both decided to live in India. On their way back, they spent some time in Israel and visited a few other countries as well. In 1950, the community village of Bapugram in the Pashulok area, near Rishikesh, began to be formed. Dharampal and Phyllis lived in it till 1953. He returned to England with his family in 1954.

He was back in Delhi again from early 1958 to 1964 with his wife, son and daughter. He now took up the post of General Secretary of the Association of Voluntary Agencies for Rural Development (AVARD); Kamaladevi was its first president. Soon thereafter, Jayaprakash Narayan agreed to be the president of AVARD. (He remained president till about 1975.)

For about two years (1964, 1965) Dharampal worked with the All India Panchayat Parishad (A.I.P.P.) as Director of Research and spent

more than a year in Tamilnadu collecting material that was later published as *The Madras Panchayat System*. Earlier, in 1962, he had already published a smaller book containing the proceedings of the Indian Constituent Assembly relating to the discussion on the subject of "The Panchayat as the Basis of India's Polity".

From Madras, for family reasons, Dharampal once again moved to London in early 1966. His son had met with a serious accident.

By then he was also keen on a detailed study of the Indo-British encounter during the 18th and 19th centuries. This time he stayed on in London till 1982, but visited India in between. In England, he did not have much of an income. There was also a family to support. But notwithstanding all this, he became a regular visitor to the India Office and the British Museum and spent most of his time poring over the archives. Photocopying required money. Oftentimes, old manuscripts could not be photocopied. So he copied them in long hand, page after page, millions of words, day after day. Thereafter, he would have the copied notes typed. He thus retrieved and accumulated thousands of pages of information from the archival record. When he returned to India, these notes—which filled several large trunks and suitcases—proved to be his most prized possessions.

From around 1958, Dharampal had developed an association with Sevagram, especially because of Annasaheb Sahasrabudhe. He spent around a month in Sevagram in 1967, where he did his first writing based on the 18th-19th century data he had collected. His next long stay in Sevagram was from December (1980) to March (1981) when he completed *The Beautiful Tree*. From around August 1982 to 1987, he was mostly in Sevagram with occasional sojourns in Madras.

Dharampal was president of the Patriotic and People-Oriented Science and Technology (PPST) group. He was also closely associated with the Centre for Policy Studies located in Madras.

His wife died in London in 1986.

From 1993, he has been living largely at Ashram Pratisthan in Sevagram.